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ELEMENTARY SCHOOL CURRICULUM

FROM THEORY TO PRACTICE



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INTRODUCTION

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This book is intended primarily for the student majoring in elementary education and studying to become a teacher. We believe there has been a void in educational literature in the area of the application of theory and knowledge to practice in daily teaching. The story of many teacher-education programs seems to be this—the student is adequately prepared in background of subject matter and in theoretical methodology, but he is not so well prepared in the application of these in the classroom.

The authors, one working in a university where teachers are trained and the other in an elementary school where the results of this training are under constant observation, can view this situation from two vantage points. We have long felt a need for a book in teacher education which would adequately treat the theory of educational practices and, *at the same time*, present and examine *practical* aspects of teaching. There is need especially for materials which more clearly portray an appropriate picture of the curriculum in action. And, to be meaningful, these practices must be presented in a context of acceptable theories of teaching and learning.

PURPOSES OF THIS BOOK

1. To acquaint the student of elementary education with today's elementary school—its program and curriculum, organization, physical plant, facilities, personnel, and administrative practices. Much of this purpose is accomplished in our first two chapters, in which the student is given a rather complete orientation to the elementary school. This is done through a tour of "Composite School," a combination of various kinds of elementary schools. From this base, we can better think through the theory and the practical applications of

the major academic subjects normally found in the elementary curriculum.

2. To give the student a knowledge of the theory, content, and purpose of each of the subjects included in the elementary school program.
3. To build a bridge for each subject *from theory to practical application* in the classroom. This we do by illustrating with actual situations and incidents how theory is transferred into action. This practical feature of the text aims to guide the beginning teacher as he attempts to put his knowledge into practice.
4. To encourage the teacher to include in his teaching many facets of today's school which teachers do not always recognize as an integral part of the total program. We refer to assemblies, educational trips, operation of the school store, disaster drills, instrumental music, working with school specialists, the P.T.A., the safety patrol, playground supervision, and a host of other experiences.

ORGANIZATION OF THIS BOOK

Two introductory chapters, describing today's elementary school, set the stage for an examination of theory and practice. Chapter 3 contains a description of curriculum foundations which helps the student understand the meaning of curriculum, its organization, its genesis from psychology and sociology, and its relationship to learning. This chapter leads naturally into the major part of the text, a subject by subject presentation of the curriculum.

In this portion of the book, a chapter is devoted to each elementary-school subject. The first part of every chapter presents the historical and the theoretical ideas on development and methodology. The second part of each chapter follows with the methods and realities of application.

Because what pupils learn must be carefully appraised and because evaluation is yet an additional learning experience, the next section of the book, "Evaluating and Reporting Pupil Progress," includes discussions of testing, reporting to parents, teacher-parent conferences, and accumulative recording.

To assist the beginning teacher on the job, the final chapter is devoted to a presentation of many helps and suggestions for meeting the myriad problems and needs that arise from day to day, not only in curriculum, but also in the vital area of pupil management, in instructional planning, and in meeting children's needs throughout the year.

Chapter summaries and questions for discussion and application are included at the end of each chapter as a review of the significant concepts presented and to further stimulate students to think through solutions to curricular and other school problems and situations.

The many delightful pictures have been used to illustrate some of the

INTRODUCTION

learning situations discussed in the text. The authors gratefully acknowledge the courtesy and co-operation of the Grosse Pointe, Michigan, Public School System, which has so kindly supplied the photographs for this book.

It is the hope of the authors that this textbook will be of value not only as a class text for students in college and university courses but also as a worthwhile reference for principals and teachers on the job.

MARSHALL C. JAMESON
WM. VERNON HICKS

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BEGINNERS NOW—TOMORROW: MERCHANT, LAWYER, DOCTOR, CHIEF.

CHAPTER 1

THIS IS THE ELEMENTARY SCHOOL

There stands the elementary school. Not so many years ago you were a pupil here, and you are now planning to return to it as a teacher. To be sure, you remember much about "grade school" and the many experiences you had as you progressed from kindergarten or first grade through sixth. You may believe that you know quite a bit about today's elementary school and what its curriculum embraces. You are reasonably sure that you have a knowledge of what goes on in a fourth-grade arithmetic class, what happens in elementary social studies, and what characterizes a good experience in an elementary music class. You spent six or seven years here in the elementary school, and so you believe you have a fairly accurate picture of what is going on there today.

We suggest that quite the contrary may be true: you may not have a totally accurate or clear picture of today's elementary school or its curriculum. This could be so because:

1. You have been away from the elementary school for quite a few years.
2. You never knew your elementary school as a pupil as you will know it—and as you will need to know it—as a student and teacher. Does a kindergarten child, for example, really know the kindergarten philosophy and program when, at the age of five, he experiences it? Obviously not.
3. The elementary school as you believe you remember it and as it really was when you attended it, has changed; it has made some significant and progressive strides. Curriculum improvement, building design and use, new and improved materials, methods, and equipment, more knowledge of child growth and development, different kinds of reporting pupil progress to parents—these and other changes make it a different school from your school of yesterday.

With this in mind, and before we get to the central theme of this book—theory and practice in the elementary school curriculum—we believe it is essential to take a sort of tour of today's elementary school. It is important to know the setting in which the curriculum operates, for that environment will help determine what kind of educational program can be carried on and how effective the teaching and learning will be. Knowing the elementary school thoroughly is essential, regardless of what grade or subject you may teach. It is essential that you know the school and the people who make it go.

CHANGE AND PROGRESS

It has been said that, in spite of our preparation and training for teaching, we are likely to teach as we were taught ("As a twig is bent . . .")—that we often emulate the teachers *we* had in school. This may be desirable, someone might argue, especially if we had good teachers. But the emulation of good teachers is not enough. For those good teachers have changed since they taught you. (Many of them, fortunately for education, are still teaching.) They have continued to study and to improve, and they have grown in good practices. They have helped bring about curriculum changes and other school improvements that make today's school different and better. To teach, then, as they taught you (even if you could accurately remember how they taught) would mark you as a "behind-the-times" teacher. And suppose you had some poor teachers!

Colleges and universities, too, have helped bring about a better elementary school by developing improved programs of teacher education that are sending into our classrooms better-prepared, more efficient, and more competent teachers. Today, few teachers begin their careers with less than a four-year college education. Great growth has taken place in the area of student teaching. And the co-operating schools, with the advances made since your teacher taught you, make more effective teaching possible.

You need not—you *should* not—therefore, become a carbon copy of any teacher, though probably you will wisely incorporate into your teaching some of the fine practices of some of your elementary teachers. But for the most part, you will become your own kind of teacher, guided by the philosophy you now have or will develop.

First, though, you will need to know the elementary school.

A VISIT TO COMPOSITE SCHOOL

This is really not *one* school. It is a composite school, an "all kinds" of school, containing, for the purpose of better understanding what might be found in any elementary school, different kinds of organizations, facilities, personnel, and procedures. We will, therefore, call our school The Composite Elementary School, U.S.A. None of you know in just what kind of elementary school you will teach. It would be misleading

to describe a particular school and its particular and unique features, for it might lead you to expect a counterpart of that description in your first school.

Notice the American flag flying from the school pole. Even before we enter the building, we can talk about curriculum. Composite School enjoys all-school flag-raising ceremonies out-of-doors each Friday morning. Teachers, with their pupils, take turns in preparing and presenting these programs. Hopefully, such activity grows out of the educational pursuits in the classroom. At any rate, teaching flag etiquette and flag courtesy will be part of your job.

Notice those small shrubs along the walk. And those young elm trees, planted on Arbor Day. Out here there is nature study, science, history.

We'll go to the school office first and meet the principal to ask his permission to make this tour. The authors, rather than the principal, will conduct you through the school. We want to do this because of our aims in this book. We will not accept, either, the proffered services of the "Pupil Guide of the Day" though normally his help would be appropriate and very enjoyable.

WE MEET THE PRINCIPAL

This is the office of the principal—or perhaps the principal's "area" of the general office, if he has no private office. We need not ask him if he is a full-time principal, a part-time principal and part-time teacher, a principal of two buildings, a supervisory principal, or a principal who teaches full time. He may be more skilled in curriculum and less proficient in supervision and administration or vice versa. Like his teachers, he has strengths and weaknesses. As a teacher you will want and need to know the principal of your building well, and to know how he can be of help and service to you. Above all, use him!

Whatever his talents may or may not be, he is the head of this school, held responsible by his superintendent and board of education for what happens here. Because of the nature of his work, few teachers ever get a full view of the behind-the-scenes activity of the elementary principal.

Do all you can to get to know him well, not with the idea that you can the better keep out of his way, or, knowing his whims and idiosyncrasies, placate him. You should know him in order to be able to use his knowledge, help, and services to full advantage in all aspects of your work. The principal, like the secretary, custodian, and nurse, is there to support the teacher, who, next to the students, is the most important person in the building. Let's say that another way: that the job of the teacher is the most important job, for no person, and surely not the principal, should be thought of as the "most important" person in the school.

The principal's job is to facilitate in every possible way the teacher's work with boys and girls. Let him work with you in all matters of cur-

riculum; in parent relations and in pupil guidance; in testing and evaluation; and in professional growth. Let him help you quiet Mrs. Abernathy, angry because little Susy lost her mitten and "the school just doesn't seem to care!" Share with him your concerns and your satisfactions and some of the humorous things that happen. Above all, make sure that your principal sees your successes! He may not accidentally happen in on them. Invariably, it seems, he comes in when things are a bit wobbly! But even at these times he can help you. He will know, anyway, if you are having trouble; don't try to hide it. *Give him the chance to work with you, for he succeeds or fails as his teachers fail or succeed.* (You didn't know this about principals when you were here, did you?)

A principal wants to be worked hard by his teachers. He will be able to help you avoid or soften failures and multiply your successes. He is not a magician, we would warn you, and he too will occasionally "fall on his face." Sometimes he needs *your* help in a problem of his own. Though the term "teamwork" is overworked, it does describe the relationship of a principal and his teachers—of the entire school staff.

THE SCHOOL SECRETARY AND HER JOB

Over there, counting milk money between telephone calls, is the office clerk or secretary. (We hope it isn't the principal, though this is the job of some principals even at this late date!) The secretary is an important cog in the big wheel. Some secretaries, indeed, think of themselves as the big wheel, making teachers kowtow as they come in for service and supplies. You will have to work with this situation if it should prevail in your building. But such secretaries are exceptions, fortunately, and our friend here is the rule: interested in the well-being of the school and happy to give teachers quick, efficient, and friendly service. She is a friend to staff and pupils, a public relations person to parents and all others who telephone or come in person to the school.

Secretaries have their bad days too! Teachers contribute to it when they fail to do their part in co-operating with the office. For instance, "due-ins" should be in on time, reports made correctly, and routines for getting materials observed.

The office secretary is also an aide, but she likes to be treated with kindness and respect. As with the principal, you will probably never really know all she does to facilitate the work of the teacher. You probably left the elementary school as a pupil thinking that the office secretary's work consisted of putting "stingem" on skinned knees and just being there in case the phone rang. As you teach, you will discover more of her value.

OUT INTO THE SCHOOL

Now we will step quietly into the hall and continue our visit. Since we are school teachers, the word "quietly" slips off our tongues easily and often. We would not have you believe, however, that Composite School

is a noiseless school and that our chatting as we go along will be disturbing. This would be a proper juncture to tell you that today's elementary school pupils, in many ways, are much the same as you were. Certainly this is true in the matter of noise! They make as much clatter as you did, in the right places at the right times and in the wrong places at the wrong times! Our schools neither expect nor foster a cathedral-like or monastic atmosphere. Yet we might happen on a teacher disciplining a pupil or group of pupils for being noisy, for limits must be set and schools must hold to them.

FIRST TO THE KINDERGARTENS

These are the kindergartens, the wonderful world of the five-year-olds! This is one of the most exciting classes in the elementary school. Some of us contend that the best educational year a child will ever have is this his kindergarten year. A parent recently asked the speaker at a Parent-Teacher Meeting, "What happens to the enthusiasm, gay abandon, and spontaneous expressiveness of the kindergartner as he goes on through the elementary school? Why does he gradually lose these wonderful ways?" The speaker had no answer. Do we in education have it? We ought to find out if we don't. But that is another matter for another time.

We need to know the kindergarten child and *then* build the kindergarten program in the light of our knowledge and understandings. Gessell¹ has this to say of him: "He does not tolerate a kindergarten well if it makes too many pioneering demands upon him." Gessell goes on to give us a hint of the kind of person the five-year-old is:

Just now he is not in a Pioneering phase of development. He has a healthy intolerance for too much magic and too much fairy tale. He has just barely discovered his actual world; and this has enough novelty and reality on its own merits. He is even something of a homebody. This is not because of abnormal dependence; but because the home is a complex institution, which invites and rewards his consideration. He is happy to play house, with all of its domesticities, by the hour, which is not to his developmental discredit. And if while he is in kindergarten he particularly enjoys the dramatization of domestic situations, we cannot be amazed. He must make the familiar more familiar to himself; the familiar world is still new.²

This is the kindergarten wing, where, in more and more schools, formal education begins for American children. Composite School has another section for children who enter first grade without kindergarten experience. We will see this later.

¹ Arnold Gessell and Frances L. Ilg. *The Child From Five to Ten* (New York: Harper and Brothers, 1946), Chap. V, p. 08.

² For another view of this age child, the film "Frustrating Fours and Fascinating Fives," though no longer new, is excellent.

Kindergarten is not merely a place where children play, though many lay people and, perhaps, some of us in the profession seem to think so. Play has a purpose in the kindergarten program, but far more accrues to the child than the acquisition of the ability to play successfully. Neither is kindergarten a prelude to or a preparation for a child's elementary education. Such a concept would not harmonize with today's philosophy of continuity of education, of continuous child growth. A good kindergarten program is a co-ordinated part of the total elementary school program, and it does not culminate in the attainment by each pupil of a prescribed "package" of skills and knowledge required for entrance into first grade. Education can no longer be forced into graded compartments, with rigidly defined doses of knowledge boxed neatly within. Perhaps it would be wise to rename this year, eliminating the word "kindergarten," so that the first year of the child's elementary school life would not be thought of as separate and different. The Ungraded or Primary Plan of organizing the early grades, which will be described in this chapter, encompasses a three- or four-year block of primary years; under this plan the kindergarten and the primary grades are not considered "different" and "distinctly separate."

The kindergarten curriculum should be developed in harmony with

"SHOW AND TELL TIME" IS A COMMON FEATURE IN TODAY'S ELEMENTARY SCHOOL.



the philosophy and developmental pattern of the total elementary curriculum. In such a curriculum, the kindergarten teacher has responsibility for the introduction of certain concepts which will be developed systematically in each following grade. In science, for example, a concept of animal life is presented in kindergarten in its most elementary and simple fashion, and is further developed in science studies each year thereafter.

In the kindergarten we will notice a popular activity generally called "Telling Time" or "Show and Tell." In this activity, the children, one by one, stand beside the teacher to show the class some toy, a new dress or shirt, or other object, and tell something about it. Or, having no object, the child tells of some happening or coming event, usually centered in the home. In this way, these youngsters grow in self-confidence and in the ability to express themselves before others. Communication skills are improved as they progress through this first year of school.

During "Telling Time" the teacher often learns much about the child's home and family. Some of it she wishes she did not know, for these fountains of family news know no limits in their enthusiastic revelations.

Children also rest in kindergarten. These moppets get tired, even during a half-day school experience, and so they must take time out. We are a little early today to see this phenomenon, but later these human dynamos will all be stretched out on the floor (if the floor is warm), each on his own rug. Miss GERALYN tries for complete quiet and relaxation here—no talking, eyes closed, soft music playing. In any such group, though, look for a recalcitrant, like the one shown strikingly in the following incident related to us by the teacher: The children were all resting. It was quiet, all eyes closed as they should be. Suddenly Frankie called to the teacher, "Miss Jones, Henry has his eyes open!"

This, then, is a quick look at the kindergarten, where parent-teacher relations are perhaps stronger than they will be at any other time of the child's entire school life. If only we could maintain this relationship all the way through school!

HEALTH—A PART OF TODAY'S CURRICULUM

Down this hall are the first grades. Before we go into these rooms, your attention is called to the "Health Room" or, as it is often erroneously referred to, the "clinic." This is a misnomer, for rarely are actual clinical services performed here. Composite School may or may not have a school nurse. It may have one who stops in for a short while on a regular schedule. The scope of services of a school nurse or school doctor will determine the health responsibilities which rest with the teachers. More and more health activities and services, rightly or not, are finding their way into the elementary school. Today, in schools, we measure our children, weigh them, test their eyes, test their hearing, physically examine them, inoculate them, clean, repair, and fluoride their teeth,

conduct pre-entry checkups, meet nutritional lacks, keep detailed health records, and undoubtedly more.

And the teacher is a part of some or all of it. The good curriculum will provide generously for the child in the subject of "Health" over and above a good program of physical education. Such a program is much more than the "extra" activities just named, though these might well be made an integral part of health teaching.

Those two beds or cots are usually occupied by children who have become ill in school. It is not always possible to have them called for or to take them home, and so the school cares for them. Children make false runs to these cots at times, for it is fun just to lie there with nary a pain and enjoy this exciting area of the school! Many a sharply attuned ear has taken in conversations in the adjoining office which they should not have heard when principal, secretary, or teacher has forgotten that the cots were occupied!

THIS IS GRADE ONE

Here are the first-grade rooms. In their sophistication in this new world, these first graders would declare that we, the visitors, have just come from the kindergarten where the "little kids" are!

There are several kinds of first-grade organizations in this school. One is a straight first grade, with one teacher for all activities, except, perhaps, for an occasional art, music, or physical education class. Another is only partly first grade: because of mid-year promotions, it contains both 1A and 2B pupils. One room, known as the "transition" room, is made up of pupils too advanced to remain in the kindergarten but not ready for first-grade formal reading. Another organization, found in some large city systems, is the "auditorium" or "platoon" system, where children are with one teacher half the day and with several special teachers the other half.

Still prominent across our country, even though consolidation is actively at work, is the one-room, rural school with which you may be familiar.

THE UNGRADED OR "PRIMARY PLAN" OF ORGANIZATION

Composite School is quite excited about its newest plan of organization of not only the first grades but the first three or four grades, known as the "Ungraded" or "Primary Plan" organization. In this program, grade levels or grade names are abolished and a block of years is given pupils and teachers in which to proceed with continuous learning, especially in the reading program. Here there are no pressures of meeting artificial grade standards, of "passing," of meeting achievement test medians, and no fear of failure. Children are not forced to read according to a

³ Goodlad, John I., and Robert H. Anderson, *The Non-Graded Elementary School*, Harcourt, Brace and Company, 1959.

preset calendar date but are permitted to progress at their individual rates, taking no step forward before they are capable and learned at the present level. Success is their constant companion. Teachers are not concerned about violating the private world of the next teacher as regards texts or content. Therefore, those children who move rapidly out of "first-grade" materials and accomplishments go right on, without stopping, into "second-grade" work. Children who need much more time in a readiness program are given that time.

In the Primary Plan, the chasm that exists between the informal, textless world of second grade and the more rigid, formal, textbook world of third grade is smoothly and sensibly spanned.

In this plan, most of the children will take the same number of years to complete the work as in the graded system of organization. Some will need an extra year in the block, but they will have no sense of failure, will not be made to suffer the emotional upsets which retention usually causes. A few children will be able to go through the three-year block in two years. They will not miss any steps, however, as the child does in the graded plan when he is double promoted.

The purpose of the Primary Plan is to send pupils into fourth grade (if this is the first year past the block) stronger in their understanding of and ability in reading, and with fewer reading problems.

While the emphasis of at least some ungraded plans is heavily upon reading, all other aspects and subjects are maintained and developed in harmony with the developmental stages of the reading program. Numbers, writing, spelling, science, and all other subjects are taught, as in the graded plan, but with this significant difference: the teacher, with a three-year block of time and not needing to meet "grade level" demands, can introduce the various subjects and skills in a more natural way—that is, after proper readiness for each has been developed.

Primary plans are not new. More and more schools are adopting this kind of organization.

Regardless of the plan or organization, first graders are very much alike from coast to coast. The content of their programs, too, is similar. Here the child takes his first important steps in the long and often difficult journey through the land of learning to read. He will encounter formal writing, too, though he may have learned to write his name, and a bit more, in kindergarten. Composite School teaches manuscript writing in some of its first grades and cursive writing in others. Both methods can be defended, though research favors teaching manuscript in the first two grades, since it is manuscript printing the child meets in learning to read.

Some teachers begin formal arithmetic and spelling in first grade; others do little in these areas before second grade. Health education, language, art, music, science and social studies which usually have been introduced at least informally in kindergarten, become more important and regular in grade one.

First grade is tiring for children, especially during the first part of the year. They have just come from half-day experiences in kindergarten, and this is their first experience of staying in school all day long. They become cross and irresponsible. They get sleepy, and are not very successful, during the last part of the afternoon, with activity which requires much mental concentration. First graders often take off for home during the last recess, thinking the day is over. Sometimes they even go home at noon!

In most rooms, the children are introduced to a reading friend called the workbook. The value of the workbook will depend upon the teacher's wisdom and skill in using it.

Here, for the first time, too, the youngster is oriented to formal grouping. He is on one of two, three, or more "teams," depending on his ability or his rate of progress. Bluebirds, Robins, Squirrels, as you might remember them; Jets, Rockets, and Spacemen, today. They come to the reading circle on schedule, but the game should be rather short. Their attention span is still rather limited.

If you were to stay in one of these first-grade rooms all day, you would notice how often the teacher changes the pace and the activity to meet both the children's short span of attention and concentration, and their need for a change of pace and position. She plans her activities in the light of this knowledge, especially in the room we enter next.

This group has had no kindergarten experience. Not all schools include kindergarten in their programs, desirable as kindergarten has proved to be. Teaching these children, in school for their first time, poses some problems. A longer period of reading readiness will probably be needed; skills and abilities in following directions, listening, working individually and in groups, and carrying through on the job at hand will need to be carefully developed. For these children who have had no previous school experience, the teacher will need to keep periods of activity and concentration shorter, at least during the first part of the term.

The first grade teacher has her work cut out for her—developing, presenting, and maintaining a rich program in language arts, science, number development, music, art, writing, and calming anxious parents. ("Here it is October and he isn't reading *yet*!")

"TIME OUT" IN THE TEACHERS' LOUNGE

Before going to second grade, let us rest a bit in the teachers' lounge. Such a room, where teachers may kick off their shoes, unbend a little, and, in general, take a bit of relaxation and catch their breath (and even have a smoke), is rapidly becoming a "must" in the elementary school. Before this room was established, the teachers at Composite School used to hie themselves down to the furnace room for a quick smoke. In some schools the teachers still must so accommodate themselves, and other schools prohibit smoking at any time in the building.

As entering teachers, you must accommodate yourselves to whatever situation exists at your school, at least for a while. Lack of a teachers' room could be an area in which you might wish to exert some leadership in due time. By concerted staff action, desirable improvements are brought about. You might be well advised, however, to sit tight for a while until you know the lay of the land.

Some teachers misuse the teachers' lounge. The habitues can be found here every possible minute, it seems, when the children are not directly under their control. Even when children are in the classroom, some teachers have been known to abdicate for five minutes if the teachers' room is close by, and some teachers stay until the very last, returning to their classrooms well after the children have returned from their recess.

RECESSES MUST BE CONSIDERED

Before we leave here, we may as well get to this matter of recess. You will meet it and have to deal with it in some form or other: it will be a part of the program in almost any school in which you might teach.

What is recess, other than that "time out" we all so dearly remember from our elementary-school days?

The dictionary offers this definition: "Recess—a time of cessation from employment or occupation."

This is close enough, though, for school application, we should add "for the purpose of physical and mental refreshment and relaxation (outside play, use of the toilet, drinks, and the like)" in order that we may resume our work, study, and activity with more attention, concentration and success."

Recesses are necessary and good at certain times. Sometimes they are overused and misused.

Very common in the American elementary school, especially in the early grades, is the twice-daily recess period, at mid-morning and mid-afternoon or thereabout. The children usually go to the playground to have fun. Generally, the teachers are there to supervise. They may be strictly overseers, watching to see that things go safely and well. Or they may be expected to organize activities for the children and even to participate in them. Teachers have never exhibited any discernible enthusiasm for recess duty, especially when it is cold outside.

Some schools carry this two-a-day recess plan right on through the school. Others may have only an afternoon recess for the upper grades. Some schools have no scheduled recess periods at all for older boys and girls.

There are schools where there are no scheduled recesses at all. Here the teacher makes the recess serve the children and the program to a higher degree. Recess periods of varying lengths and descriptions are

⁴ We are not including here the noontime break as recess.

declared when and if needed. In this plan, no bell shatters an interesting experience or stops the teacher short of clinching an idea or concept. No schedule forces the teacher to the playground for duty when she would gain more for her pupils by continuing an activity to its natural and effective conclusion.

Recess periods have often been used by some teachers as instruments of discipline. The recalcitrant or unco-operative child, group, or entire class is made to stay in at recess and work. Since the recess plays an important part in the child's development, it should not be used as a means of discipline. You would be unlikely ever to see a child kept from arithmetic for disciplinary purposes. Principals who ask that teachers remain in the room with children when they are kept in for punishment soon find this practice magically eliminated!

NOW TO SECOND GRADE

We can move more rapidly through these rooms, since much of what we said about Grade One applies here. In organization and curriculum, the first and second grades are very similar. The teacher may have been with a particular second-grade group of pupils in first grade, as part of a two-year cycle plan. Or she may have a 2A-3B combination. In the crowded school, regrettably common in these times of rapid population growth and school building lag, teachers may teach two different groups, one in the morning and one in the afternoon. We know this situation as the "half-day session." The beginning teacher is not always prepared for this kind of assignment, but it may easily be her first situation. Think about what a difference half-day sessions make in programming, pace, enrichment, meeting individual needs, mental and physical health of children, and the matter of excessive but unavoidable pressures. Too, problems of sharing one room with another teacher and another group, when a teacher teaches only half a day and works independently the other half, are many and complex.

In this particular second grade the teacher is using a tachistoscope—because the word is difficult to pronounce, commonly called the "T-Scope"—an instrument or machine used in the teaching of reading. It is quite likely that you did not have such a piece of equipment when you were learning to read. An opaque projector rests on the table over there, having just been used by the teacher in a science experiment. In another room, we will observe the use of the motion picture projector and the filmstrip machine. Some rooms have black-out draperies, which permit the use of all audio-visual pieces of equipment in the classroom. Other rooms do not have such draperies, and the teacher must take her class to the "movie room."

What we are attempting to show here is the wider use made today of both older and newer audio-visual aids and equipment which you already know about or will come to know before you begin to teach. Though some elementary schools have trained projectionists—older

children trained in using this equipment—the beginning teacher should be prepared to operate these machines herself. Sometimes it requires the utmost in patience, not only when learning how to operate the machines, but when films break or have been rewound upside down, or when the bulb burns out. With progress there is pain.

STILL MORE AUDIO-VISUAL AIDS

Available to teachers, in varying numbers, are tape recorders, transcription players, recordings (disc and tape), motion picture projectors, filmstrip projectors, 35mm camera slide projectors, projection microscopes, tachistoscopes, and abacuses. Different kinds of cameras, too, are finding their way into audio-visual programs.

Yet other schools and teachers have only a few or none of these. Should you begin to teach in such a building, you would have to shelve that favorite unit you planned and presented in your student teaching in which you relied heavily on audio-visual equipment.

THE ELEMENTARY SCHOOL LIBRARY

In the second grade, many children are reading fluently and go through books rapidly. The library becomes more important to the children, though they may well have had library experiences in first grade.

But not all schools have libraries. The older unit of Composite School, has a separate, rather complete elementary school library and a full-time, professional librarian. The newer wing, harkening to the trend of newer times, has no separate library, its staff choosing instead to establish room libraries. There is much to be said in favor of both plans or a combination of them.

This school once had *no* libraries, just as you might find neither a library nor library books in your first school or room. This would be regrettable, but it is a possibility and you need to be aware of it.

As we move out of the Grade 1-2 level, we remember having seen some rooms with movable furniture, including pupils' tables and chairs, library table and chairs, and the like, while other 1-2 rooms had the well-known screwed-to-the-floor desks in severe rows. In both kinds of rooms, enterprising teachers had created a warm, home-like atmosphere.

GRADE THREE

This is Third Grade, a part of what is often termed the "Middle Grades," third and fourth, generally thought of in this pattern:

KINDERGARTEN- PRIMARY, 1, 2	MIDDLE GRADES 3, 4	UPPER GRADES 5, 6
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The third-grade child moves into a new world that is more or less strange academically, organizationally, and socially. Perhaps a better phrase would be "is dropped into," for there is a chasm separating second grade from third grade which has not been well bridged, if it has been bridged at all, by educators; and children are forced to make an abrupt change which, at best, contributes little to their adjustment. The pattern, actually, looks more like this:

KINDERGARTEN- PRIMARY, 1, 2	MIDDLE GRADES 3, 4	UPPER GRADES 5, 6
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The Ungraded, Primary Plan, as mentioned earlier, provides this desired smooth transition between the end of the second grade and the beginning of the third grade.

Look about you now, in this third grade, recalling what you observed in those 1-2 grades just visited, and note the following things that make third grade different. We do not wish here to quarrel with this difference, but to point out that there is quite a difference, which must be taken into consideration.

1. The children have individual desks, not, as in Primary, tables and chairs, where two pupils often sit together.
2. The atmosphere and procedures are now more formal, a formality determined mainly by tradition but partly by the nature of the program and the stage of advancement through the elementary school.
3. The desks are grouped in a different fashion, usually in straight rows, one desk behind the other. We once asked a demonstration teacher in a summer-session laboratory school why he had his upper-grade pupils seated in this straight-row, each-behind-the-other fashion. "They have more to say to me than they do to each other," was his quick reply. As we go on through the school today, perhaps you should listen to determine whether teachers might not be doing too much of the talking.
4. The recess periods may be fewer and shorter.
5. There may be a different teacher for each subject or for an entire half day, depending on whether or not the third grade is departmentalized.
6. Use of the workbook usually tapers off and a different kind of preparation by the pupil is called for, requiring new kinds of study and work habits.
7. In some schools, the changeover from manuscript to cursive handwriting takes place during this school year.

8. Teachers may expect too much from the pupil, especially at first, "now that you are no longer a primary pupil"! Too fast a pace, too many and often too heavy assignments may cause the third grader to look longingly down the stairs to his second-grade Utopia!
9. Third-grade boys and girls may be allowed to ride their bicycles to school for the first time.
10. The opportunity to take on responsibility as a school citizen is enlarged to include such activities as taking the milk order, working in clubs, Junior Red Cross, being a class officer, handling Lost and Found, and many others.
11. Perhaps these children will have lockers in the hall in which to keep their wraps, instead of hooks in the classrooms.
12. The report to parents is often different and difficult for the children to comprehend. By now, they are expected to understand the report card. We suspect, however, that few elementary school pupils *ever* understand report cards. Teachers and parents themselves are not always sure what they mean.
13. Mother comes less often to school, and Dad may come now if there is discipline trouble! Mom has been tapering off in these visits to school ever since kindergarten. Here, in third grade, her appearance is rare, for her coming is severely frowned on by her child. The code says, "Don't let your Mom come to visit us." In Primary, children are happy and thrilled at the visit of the parent.
14. "Telling Time" may end. Children are talking less now, and tend to be embarrassed about getting up in front of the class. Teachers may contribute to this undesirable development, for the "shushing" gets into high gear along about this time.
15. Home work usually rears its ugly head in third grade.
16. Women teachers no longer (or should no longer) go into the boys' lavatory to stop the ruckus. Open the door a crack and, in a stentorian voice, send in your edict. You will probably get the desired result.
17. Crayons, scissors, and paste retire, finally, to the background.

Despite this long list of differences, the third grade is not dangerously different, nor is it a "bad" grade. Third grade is wonderful and third graders are delightful. It is quite a change from Primary, and the teacher needs to be aware of this and transform that awareness into guidance. She should know the program from which the children have just come.

Perhaps you will help to build the bridge.

CONSULTANT HELP IN "SPECIAL" AREAS

The person now coming into the third-grade classroom is known in Composite School as a "consultant" or "counselor" in special subjects,

usually in music, art, or physical education. This counselor's specialty is art. She has come in, at the invitation of the classroom teacher, to give needed guidance and help in some phase of the art program. This counselor is not a supervisor, but a "friend in need." In another Composite third grade, such a person is a supervisor and the relationship between teacher and specialist is different.

This, then, is something of what third grade is like.

THE NOON LUNCH PERIOD

Some children go home for lunch; the others stay at school to eat. In another situation, the school is so located that all children return to their homes for lunch. Here at Composite School, most children are the responsibility of the school from 8:30 A.M. to 3:30 P.M. They eat lunch here every day.

The school has a variety of lunch situations:

1. A cafeteria serving all children.
2. Children eating a cold lunch brought from home, with milk purchased at school.
3. Children having a hot lunch in the gym at tables let down from the wall or hurriedly brought in by the custodians each day, or in a dimly lighted, damp, or a brightly lighted, airy room in the basement. The food is brought in from the outside, probably from the high-school cafeteria.
4. Children eating in several or all classrooms at their own desks or tables. In such a plan, the odor of bologna and apples lingers in the room throughout the afternoon. Food-smearred desks may be a matter for teacher attention, too.

Eating lunches in the classroom brings to mind a mundane and uneducational matter—the *common house fly*. Few schools, we suspect, have screens on the windows. We do not know of a single one. So, in fall and spring, in come the flies. They keep children from concentrating and drive both children and teachers to distraction. When lunch is eaten in the classroom, flies swarm in. You will have to live with this problem, unless you teach in a part of the country where flies are not a problem.

Whatever the lunch program, it must be supervised. You know by whom. Would that we could report to you that in all American elementary schools today teachers had a full lunch hour, free from any lunchroom or playground supervision, free to stay in or leave the building as they wished! But elementary-school teachers still have noon duty. A new arrangement has been made, though, in some elementary schools, where lay women, usually mothers from the community, supervise both the lunch program and playground at noon. They may be volunteers from the PTA or women hired by the Board of Education.

Perhaps, in time, all elementary teachers will be relieved of this purely custodial duty.

Though we chance losing a prospective teacher or two, we must mention the rainy day, the extremely cold day, the very windy day, and the days when blizzards rage, when children must remain inside after they have had their lunch. On such days, teachers must "ride herd." How they listen for that wonderful bell that ends the noon period, announcing the cessation of hostilities.

SUMMARY

The elementary school is a changing school. It is quite different from the school we attended as elementary pupils. We do not always realize that changes have taken place; we tend to think that the school, its organization and curriculum remain static. As children, we did not know the elementary school. As teaching adults, we now must know it well.

Regardless of the grade or area in which you wish to teach, it is vital that you know the *total* elementary school and have an understanding of its complete organization and content. You have had glimpses so far of the administrative area, the fascinating world of the kindergarten, and the first two grades. We stopped a bit longer in grade three, the "transition" grade—the textbook world.

PROBLEMS AND DISCUSSION TOPICS

1. In what ways is the elementary school of today different from the one you attended? You might wish to discuss this question from these viewpoints:
 - A. The school building and physical facilities
 - B. Organization of classes
 - C. Use of instructional materials
 - D. The preparation of elementary school teachers
 - E. Pupil activities
 - F. Parent participation
 - G. Freedom allowed pupils—permissive atmosphere
2. What are important factors of growth and development of the kindergarten child which must be understood thoroughly by the teacher?
3. In the following situations, describe what you think would be the homeroom teacher's responsibilities. If possible, discuss these situations with an experienced teacher or school principal.
 - A. One of your pupils is pushed down on the playground and evidently his wrist is badly sprained or broken?

- B. Harold comes to you complaining that he has something in his eye.
 - C. You are supervising the playground at noon when you see Tom fall from the top of the slide. When you reach him, you are certain that he has been seriously injured.
 - D. You discover that a pupil in your class has extremely poor vision. You know that his family has a small income.
4. Miss Smith in the third grade asks pupils to remain in the classroom during recess if they do not complete lesson assignments on time. Evaluate this procedure.
5. In most elementary schools, why is the third grade characterized as a transition year?

WHAT WOULD YOU DO?

You are teaching in a school in which regularly scheduled recesses have long been the custom. Supervision is shared, so that teachers have time off during some of these periods. Now there is a movement to change this recess organization so that each teacher will be responsible for selecting and supervising any recess periods he may want. This plan will put all responsibility for recesses with the individual teacher. Prepare the point of view you will champion at the staff meeting to decide this issue.

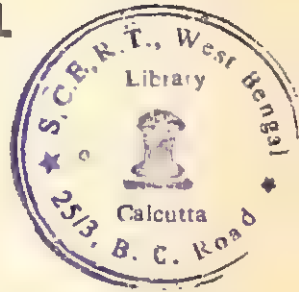
CHAPTER 2

ON THROUGH THE SCHOOL

S.C.E.R.T., West Bengal

Date... 1-3-85

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During the remainder of our tour of today's elementary school, we will visit the fourth, fifth, and sixth grades, observing, as we go, the activities and experiences provided for the children. The tardy bell has rung (or has chimed, as it does in many newer buildings), and the girls and boys, refreshed, are once more busy in their classrooms and about the building.

FOURTH GRADE

In general, the activities and program—the content of the curriculum—in fourth grade is similar to that in grade three. The transition into the fourth grade, however, is much smoother.

As far as organization is concerned, the fourth grade can go any of several ways. We see it here in one plan, as the first year of the “upper-grade” cycle, the “lower grades” consisting of kindergarten and grades 1, 2, and 3. In another situation, fourth grade is the last half of a grade 3–4 or “middle grade” cycle, and the teacher might well have been with the group in the third grade. Or it might be just plain fourth grade, following third grade and just before fifth grade, a grade in itself, not a part of any particular plan.

FORMAL READING INSTRUCTION CONTINUES

In this fourth-grade section, reading is being taught this year for the last time as a formal subject. In grades five and six reading instruction and the furthering of the acquisition of reading skills will be integrated in the study of practically every subject area: social studies, language, science, health, arithmetic, and the rest.

Across the hall another philosophy of reading prevails, and formal reading instruction (a reading class) is a part of each day's activity not only in fourth grade but on through grades five and six.

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IN PURSUIT OF EDUCATION

Incidentally, notice the boy getting up during his arithmetic class. He puts on his coat—and, without a “by your leave,” quits the room. He is not playing a sort of delayed “hookey,” as you might think at first, but is taking part in a new kind of experience. It is a phase of school life that is being supported more and more by parents of elementary school pupils. Since we would have you know as well as you can the elementary school of today, let’s examine this phenomenon.

That boy has left his room and his program to pursue his education. He leaves at this time every Tuesday afternoon to take a piano lesson at home, or at a downtown music studio. His companions in fourth grade and grades below and above him, also leave the building during school hours for lessons in art, dancing, swimming, baton twirling, voice, drama, skating, and other activities.

Instead of leaving from a class or school activity for such lessons, some children come late to school from such a lesson given the first part of the morning or afternoon at home or in a private studio. Incidentally, whether or not to mark such late comers “tardy” or “absent” is a difficult decision to make.

Children are taken from the school for other activities also: for regular or irregular visits to the dentist, for religious instruction, for private tutoring, or for visits to a psychological clinic.

Among other events for which parents remove children from Composite School during school time we find trips to the barber shop (“The barber shop is so busy right after school!”), the circus, ice shows, boat races, the flower show, youth group campouts and trips, the auto show, and Santa Claus.

To some degree, this practice will prevail in the school in which you teach. We don’t want it to be a complete surprise for you.

LET THERE BE MUSIC

Going from one fourth grade to another, we pass the room known as the “Music Room.” Especially in metropolitan schools this is a room in which both vocal and instrumental music is taught. The sounds emanating from there right now are being made by the beginning violin class. Composite School starts its instrumental music teaching with “tonette,” “saxette,” or other simple-instrument classes as a pre-instrumental experience in fourth grade. It is common in schools to begin formal instrumental music teaching in the fifth grade. This next period, were we to stay for it, would bring to the music room an ensemble made up of fifth and sixth graders. The aim of the school, in presenting instrumental opportunities to children, is to give them yet another experience, to open for them another rich world, *not* to prepare them for the junior high school band or orchestra.

WELCOME THE STUDENT TEACHER

Fourth grade is very similar to grade three, and so we will not visit further in this area.

While we move on to the next grade, we will touch briefly on another person in Composite School, the student teacher. In several of the rooms we have visited today, we have seen attractive college students working with pupils, taking part in various curricular activities, and chatting with the teachers. As one of an increasing number of elementary schools, this school co-operates actively and enthusiastically with teacher-education departments of colleges and universities in its area and state. The principal and teachers of Composite School consider it a professional privilege to share in the preparation of our future teachers. It is proud of its part in this project and considers itself the richer for it. For, though the prime purpose in the student-teaching program is to assist in the training of the teacher-to-be, the school recognizes that, in many ways, the student teacher brings richness to the school.

FIFTH GRADE

The fifth-grade rooms are very definitely a part of the upper grade organization of this school. For the pupil, this is another world, though one into which he enters without much disruption from his fourth-grade experiences. You have studied, or will study, the various kinds of patterns into which fifth grade is to be found in Composite School. The fifth grade may be:

Completely departmentalized

Half departmentalized, half home room

Completely self-contained

Self-contained, with a semi or pure core-curriculum plan.

We could visit one of each, and some others, in this school, though we need not make that many stops in order to give you a fairly comprehensive picture of this grade.

Boys and girls are seen here working more successfully in groups, and able to work more independently alone. Less teacher assistance is needed; more self-propulsion is in evidence. Fewer skills are initiated now, and more use is made of skills already acquired for solving problems, finding answers to questions, and meeting other needs. There is less teacher-telling and more individual discovery. This results in more and better reports by pupils, individual and group research, and increased abilities in organization, presentation, and use of knowledge and information.

Book reports are more numerous and complex, suggesting a more extensive and richer use of the library, with its wealth of resources.



"THE LOST AND FOUND"—CHILDREN LEARN RESPONSIBILITY IN A DEMOCRACY.

Were we to take the time, many kinds of book reporting procedures could be noted, some of which might be open to question (such as demanding a report so complex and difficult as to spoil the joy of reading).

THE GROWING CITIZEN

Additional opportunities are found in fifth grade to learn about and practice the fundamentals of democracy and democratic living, such as a more formal class organization (president, vice-president, secretary, and so on), membership and action in the school safety patrol and girls' service squads, and leadership roles in school drives, the school store, and school clubs. Composite School is occasionally guilty of exploiting these eager and capable youngsters in activities that prove more beneficial to the teachers and the school than to the children involved. We must be careful not to place too great a responsibility on delicate though willing shoulders.

THE HELPING HAND

More complicated, in fifth grade, grow the emotional and academic problems of those less fortunate pupils who have not yet learned to read adequately. It is frustrating and defeating to be expected to be a fifth grader with only a fourth- or third-grade reading ability. Such a situation is, naturally, also disconcerting to the teacher. Some fifth



IN COMPOSITE SCHOOL, THE PUPILS HELP DECIDE STANDARDS OF CONDUCT, THEN ACCEPT THE RESPONSIBILITY FOR UPHOLDING THEM.

grades in Composite School have no special or auxiliary help for pupil or teacher, no program of remedial reading. Others are more blessed, having available a reading clinic or a reading specialist. Though there can easily be in any grade those children whose reading abilities are below that expected and needed in that particular grade, in fifth and sixth grades this problem is most acute. It is paradoxical that we confront these children with a heavier task in reading when they are less adequately equipped to attack that bigger job.

It is unlikely that this condition, much as we deplore it, will have been eliminated by the time you face your first group of pupils; it is a situation you will undoubtedly meet. With or without help, you will want to provide as much remedial help as you can as you take the children into areas of ever-increasing reading difficulty. If you do have remedial assistance, these children will go to the "coaching room" at certain times and on various days, obtaining that wonderful help but missing out on the regular classroom activity.

A FIRM COURSE IN CHOPPY SEAS

But there are other activities in these grades which have caused teachers to become unpoised at times. Children leave at almost any time for speech correction, instrumental music, work with the visiting teacher,

audiometer and eye tests, fluorine treatments, and other special activities about the building. We are in luck to see this situation illustrated in this particular fifth-grade room. Notice, at this moment, the entire class giving its undivided attention to the teacher as he¹ explains a new concept in arithmetic. Just as he takes a breath to speak the clinching sentence, seven children walk out of the door, headed for the instrumental music class downstairs. Three more follow, going to speech correction, and the explanation goes awry. It requires a well-poised and understanding teacher to withstand this apparent repudiation of classroom activity. The broader concept of education includes these away-from-home-room activities as legitimate parts of the total educational program. Not all that is of significance to the educational program of children is limited to the one classroom. Though it is disturbing to have class experience disrupted in this manner, it does happen, for the frailties of scheduling have always been so.

ALL WORK AND—

Before entering another fifth-grade classroom, we want you to see the playgrounds of Composite School, for the kind and amount of play space and the equipment and facilities have a bearing on the program that can be operated there, on the accident rate, and on whether or not serious problems of play and supervision will arise. Let us go from one playground to another, so that we may observe the different kinds of playgrounds and the various methods of using them. Remembering that Composite School is a collection of different schools, we will visit playgrounds typical of different schools and of almost every part of our country. Here are some playgrounds:

1. A play space that is far too small. One yardstick for elementary school playgrounds is one acre for 100 pupils. More than 500 pupils use this area of fewer than two acres. To keep children from quarreling, fighting, and getting hurt, this staff of teachers must remain extremely alert and ready to move in for correction, guidance, and arbitration.
2. Another playground here *does* have a large play area, where boys and girls can run and play in complete abandon . . . where large games, such as Pom-Pom-Pull-Away (yes, it is still played), ball games, and other activities do not conflict with one another.
3. That playground over there, with the beautiful, huge, climbable trees contains one feature which is an issue. The issue? Those very trees.

"Let the children climb them, bless their hearts," plead some parents and teachers on the one hand, "for where, especially in

¹ We can begin to use "he" in the upper grades; fortunately, more and more men are entering the elementary classrooms of our American schools.

our cities, can children climb trees?" "Forbid the children *ever* to climb those trees," say the opposition, "for accidents will surely happen. Children will fall and hurt themselves. Anyway, they will injure our beautiful trees."

Because the accident possibility is so much greater in this kind of "apparatus," and the supervision of tree-climbing children a very difficult matter, we would favor a prohibition on tree climbing while children are under our care.

4. Some playgrounds have all kinds of equipment and apparatus—swings, teeter-totters, slides, climbing things, chinning bars, merry-go-rounds, and the like. Some playgrounds have *nothing* on them because of the possibility of pupil accidents.
5. Here is a playground which, on this sunny day, you might call ideal. But you should see it when it rains; then it is a mammoth mud hole! Some engineer miscalculated when he planned the elevation and drainage of this piece of land. What is one to do with the children on days when the playground is flooded, even though the sun is bright and the day is warm?
6. This playground, on the other hand, has a rather large bit of space which has a hard surface. On days when the rest of the playground is soggy and muddy, children can jump rope and play jacks and play similar games on this dry surface.
7. You will notice that many of these playgrounds have equipment and play areas that are close to the building. Thus, there is the question of noise coming into the rooms of those classes still in session. On the other hand, one of the purposes of recess is to give the children the opportunity to let off steam, so that to "shush" those outside at play is not in order. What to do? (You see, there is pioneering yet to be done in education, and there are still answers to be found.)
8. This next playground presents a problem a bit different from the others. This school is set in the heart of a business district. On three sides there are stores, just across the street only a few feet away. There are gates in the playground fence! Guess who wants to run over for a purchase of candy or ice cream, especially just after eating lunch. Some schools prohibit leaving the playground at any time during the school day. Enforcing this prohibition is another task for the teaching staff.

Some schools permit the older children to go to the stores, if it is done in a safe manner. "In a year, some will be in junior high school where they go and come as they please."

Beginning teachers will have to abide, of course, by the rules and regulations of the school they teach in. Knowing about some of the playground situations you may meet should help in your preparation for teaching. As suggested earlier, you are free (or

should be), ethically and professionally, to question existing practices and to offer ideas for correction and improvement once you are on the job.

9. In this last playground situation, Composite *High* School is on the same site as Composite *Elementary* School, so that the playgrounds have to be shared. Though areas have been loosely defined to keep elementary and high school activities separated, you know what happens. In a contest over any playground right, you also know who will win, if there is no teacher on the spot to arbitrate!

Playgrounds seem to be places of problems. Do not be alarmed, for principals and teachers, working together, are a powerful force. They can resolve almost any problem or, not being able to resolve it, can usually reduce its negative effect and difficulty to a low point. Being teachers, also, they learn to live with whatever can't be made better. They are clever. If, for instance, they cannot frighten that dog off the playground (dogs are a problem on elementary school playgrounds), then they pet it and charm it into the receiving room, where the custodian grabs it!

DISPLAYS: OPPORTUNITY, NOT ASSIGNMENT

The fifth graders at this display case demonstrate the degree of independence and originality reached by pupils of this age. They have planned and are now installing a display, "Food Found in the Sea," resulting from a unit in social studies. For teachers, display cases and bulletin boards, both inside the classroom and in the halls, can be problems. The East Hall teachers at Composite School have a schedule (usually made by the principal) which guarantees that the cases and tack boards will always be filled. The teachers support the plan. They say that having to see that the display cases are filled keeps them on the lookout for lively, concrete materials and so helps keep their classes lively and concrete. It reminds them that learning springs better from things than from words.

West Hall teachers have a different situation. They have no schedule, but whenever one of them has a display which has come about in the normal course of classroom studies and activities, he hunts around for an empty case or bulletin board. Sometimes no exhibits of any kind are to be seen. This situation, these teachers contend, is nothing to be apologetic about, for display cases and bulletin boards are viewed as tools to serve the program. These two opposing views are often discussed in the teachers' lounge.

Most elementary schools are still being planned and designed by people who are not, and have not been, teachers. Thus many features in school buildings are neither desirable nor useful. Whatever the educational values of displays (and they can be great), it is the opinion of the writers that some schools have too many display cases to service.

BETTER THAN THE ROD

There are those in elementary education who maintain that, along about grade five, problems of discipline and behavior become greater, more complex, and more difficult. "Especially," some say, "among the boys." You will have to decide for yourself whether or not fifth (and sixth) graders are "harder to handle." We feel that the teacher who understands child growth and development, who understands the children he is teaching, who is skilled in human relations and in the skills of teaching; who has a well-planned and challenging educational program and who keeps his threshold of annoyance high—such a teacher will have little trouble with discipline and pupil management, regardless of what the grade is.

THE EDUCATIONAL PENDULUM

In this departmentalized wing of the school is the science room. Mr. Brown teaches science only, to fifth- and sixth-grade classes, except when he has his home-room group the first thing in the morning for attendance and other routine matters. Across the hall is Mrs. Gorning, who meets the children for English. Down the hall, Mr. Darvill teaches arithmetic.

The pendulum has swung away from this departmentalized kind of program in the elementary school in recent years, moving strongly in the direction of the "self-contained," one-teacher-for-all-subjects plan. You must understand this fickle educational pendulum and be ready and able to cope with it and to help control its motion. Like the pendulum in the tall old clock in grandfather's house, this educational pendulum swings back and forth. In the life of any career teacher, this pendulum undoubtedly will make several trips across and back in many areas of educational philosophy and in the elementary curriculum:

From consultants as supervisors, to special teachers, and back to supervisors

From strong emphasis in science instruction, to some neglect, and now a return

From sack lunches, to an elaborate cafeteria, to hot meals at home

From concentration in physiology, to little or no formal study of this subject, to a total health education program

From traditional "ovals and push-pulls" in handwriting, to strong support for development of an individual program, and back to a more formal approach to this subject

From a curriculum rather completely teacher controlled and dominated, to "let's follow the pupils' bent," to more strict regulation of curricular offerings

From a lack of objective evidence in pupil progress appraisal, to almost complete reliance on IQ tests and standardized achievement

measurements, to a compromise situation in which all information is utilized

From heterogeneous, to homogeneous, to heterogeneous grouping of pupils for instruction

From a required grade list of spelling words, to no required list, and back again

The public must wonder sometimes if educators will ever decide, for certain, which is best about anything

So we have to be ready: ready for change, ready to defend the proven old. Through programs of in-service education beyond the bachelor's degree, we have to keep prepared, ready to accept change and ready to create change.

GIVE US ROOM

Here is a room without a class in it—almost a miracle in these days of classroom shortages! But here it is, used as a "Scout Room." Composite School has many groups of boys and girls who move directly from classrooms at afternoon dismissal time to this and other rooms for Scouts, Cubs, Campfire Girls, and other youth group activities. When this room and the gymnasium are filled, the groups have to use classrooms. Out goes the teacher, carrying workbooks and red pencil, exiled to the teachers' lounge—or to the kitchen, if she is allergic to smoke-filled rooms. Again, the broader concept of elementary education embraces these kinds of activities. Teachers do not have a patent on education. The school building belongs to the community, and it should be broadly and extensively used. Your classroom, at night, may be the weekly setting for an adult knitting class. Better have an extra dust cloth to wipe the cigaret ash from the desks next morning if the custodian can't get around at night.

Teachers often like to work with youth and adult groups, to become a more intimate part of the community. In any event, teachers must work with non-school people who come to the school to work with and teach children. Education of children is a co-operative responsibility.

STENTOR SPEAKS

There goes the public address system chime, signaling the advent of an all-school announcement. Notice the effect the chime has on the children. They look up at that magic box on the wall in their room, for the voices which come therefrom seem, somehow, more important than "teacher's"! (A kindergarten child at Composite School said to his family at the dinner table, "I know who my principal is! He is the man who talks through the hole in the wall!")

Here comes the announcement:

"We have in the office a cute, pure white kitten. It must have fol-

lowed one of you to school. If you think the kitten is yours, please stop in the office on your way home." Bong! Bong! Bong! chimes the end of the announcement.

"Well!" you might sigh, "what a thing to announce over the P.A. and to stop the machinery of the whole school." Have you ever lost your kitten? Is a child's lost kitten of importance to him?

Announcing that all children should remain in their rooms at dismissal time because of an imminent storm, and directing fire and disaster drills via the public address system are more significant ways in which the system can be used.

The P.A. can be the teachers' enigma—an instrument of nuisance and constant interruption. But it should no more be ill-used than any other piece of equipment in the school. The public address system in today's school is a valuable asset.²

BY, OF, AND FOR—

One section of Composite School has a student council which meets each week to take up matters that fall within the jurisdiction of this organization. We are lucky to see such a group in action. Each room has an elected representative here to champion its causes and to have its thinking and wishes reflected. This is a splendid learning experience for the pupils participating in this meeting, and for all pupils in the school. For they all participate in the fulfillment of the aims and objectives of a student council. Here they are, senators and representatives—important people enjoying their importance! (A parent asked his third grader who was a class representative, "Ann, what do you say at council meetings?" "Present," answered Ann. But at least Ann was there regularly, and she was learning.)

A second segment of Composite School does not have any kind of student council or student government. It sees no particular need for or advantage in such an organization. Teachers point out that in councils they have observed topics often had to be manufactured in order to have something to discuss and to "decide." ("Decide," they claim, for the children only *think* they decide—the faculty will make the real decision after the children have left.)

A third part of the school has no formal organization which meets regularly. They do have what they call a "Town Meeting" kind of forum for discussing school matters. In this kind of plan, the participants meet only when there is an issue, a problem, or a matter for discussion. Then, under the direction of the principal or a teacher, room representatives (different ones chosen each time) meet once or twice to discuss and to resolve any matter. They might not meet again for weeks or even months.

² William V. Hicks and Marshall C. Jameson, *The Elementary School Principal at Work* (Englewood Cliffs, N.J.: Prentice-Hall, 1957), pp. 37–39.

SIXTH GRADE

Except for degrees of difficulty, sixth grade is much like fifth grade in curriculum and organization. It is not likely that any new subjects will be introduced in this last year of elementary school.

GROWING PAINS

The differences we note in sixth grade are within the pupils themselves, and, more specifically, in their attitudes. Their attitudes toward their teachers, their elementary school, their work, their school social life, and the pupils in all grades below them undergo sharp changes. We should not view such changes with alarm or fear the problems which these changed attitudes present. When we are prepared for such changed attitudes, we can more successfully lead sixth graders through this pupil-created no man's land, sixth grade, in which the boys and girls may feel too grown up for the elementary school, though they are not yet ready for seventh grade.

The authors see the following changes in attitudes and desires among sixth graders, especially during the last half of the year:

1. The girls want to wear lipstick and other cosmetics to school. This may or may not be permitted, depending on the community, the attitude of parents, and the philosophy of the school. If it is not permitted, plan for an unrelenting chipping away at the barricade by these determined young ladies! If the use of cosmetics is permitted by sixth-grade girls, their fifth-grade contemporaries may demand the same privilege. Where to draw these and other such lines sometimes keep teachers from planning the next arithmetic lesson.
2. Clothing is another matter that becomes extremely important to sixth-grade girls. They may want to wear nylon hose to school, or Bermuda shorts. Clothing fads may well become an issue. Boys present fewer problems. They may wear jeans, "Western" clothes, Bermudas—anything, so long as it is reasonably clean and in good repair. In the matter of pupil dress, teachers have various opinions, some of which are:
 - a. Pupils *act* the way they dress. This stand argues that casual or very peculiar dress fosters a more careless and bolder set of behavior patterns.
 - b. The elementary school should "hold the line," that line being the more acceptable (whatever that might include), more child-like school dress.
 - c. Junior high school is soon enough for children to begin to emulate adult dress.
 - d. The school has no right to dictate how parents shall dress their elementary-school children.

- e. Teachers should keep the focus of their attention on teaching and leave the matter of dress to the parents.
3. Sixth-grade pupils, especially girls, are much aware of the dress and appearance of the teacher and are often quite critical. Some teachers become very conscious of this fact and attempt to avoid the critical eye of the pupils by variations in dress and by wearing striking and unusual costumes to please the children. Men are more limited than women teachers in regard to variation in dress. They can, however, avoid wearing the same necktie on successive days. Notice, as we continue our tour, the different ways Composite School teachers dress. While not attempting to dictate how teachers should dress, the authors believe that teachers should dress in good taste, attractively, and appropriately. We suggest that you avoid becoming the talk of the town, either by wearing very expensive, too dressy apparel, or that which is unusual, "flashy," and ultra-casual.
4. Sixth-grade pupils show an increasing interest in (and bring pressure for) parties of all kinds, after-school and early-evening dancing, and other boy-girl affairs. Some parents, with accusing voices, say, "There is so much of this in junior and senior high schools, why do you encourage it in the elementary school?" Others smile and remark, "It is so nice for our sixth graders to have these experiences this year to prepare them for a more comfortable participation in the social affairs of the junior high school." As for the pupils themselves, they might ask for ballroom dancing to be taught in their physical education classes. When school social affairs are held in the elementary upper grades, there rise for staff decisions such matters as new and more formal dresses for the girls and, perhaps, new clothes for the boys, both of which put a financial strain on the parents. Matters of corsages, dates, style of dancing, and dimming of gym lights during dances often demand policy decisions. As a member of a teaching staff, you will share a portion of the responsibility for the establishment, maintenance, and defense of some kind of official school attitude and policy. There will be differences of opinion and beliefs among the faculty. You may have to support a policy not in harmony with your own beliefs.
5. It seems to the authors that pupil attitudes toward the teacher change in the sixth grade, though it is difficult to document this belief. Observation indicates that pupils are inclined to question and challenge the teacher's leadership at times, whereas formerly the teacher's word was almost synonymous with truth. Teachers will certainly be viewed differently if they have to veto some of their pupils' social wishes and requests. It is along about sixth grade too that teachers become candidates for pupil reclassification

as regards their antiquity. Together with parents, we land in the category spoken of as "the olden days when you were young"!

6. Sixth graders, now being "top dogs" in the school and almost finished with elementary school, may develop rather scornful and intolerant attitudes toward pupils in all grades below the sixth. (This is somewhat analogous to the way college seniors view underclassmen.)
7. Interest in dramatics increases. Such interest can be seized on by the teacher to create some of the most exciting and valuable experiences in the elementary school.
8. During the last three or four weeks before graduation, teachers find it most difficult to maintain the kind of program they may have successfully followed up to that time. "Sixth-grade-itis" sets in! This is a malady that renders the pupil superbly indifferent to reading, spelling, and other academic pursuits.

BON VOYAGE

Getting sixth graders ready for junior high school involves much more than coping successfully with attitudes, desires, and "sixth-grade-itis." The teacher is part of an orientation plan sponsored jointly by the elementary and junior high schools. Registration, completing records, inter-school visitations, testing, counseling, and, finally, possible graduation exercises, keep the teacher going at top speed. Regarding graduation ceremonies for sixth grade, Composite School supports divergent views. One group feels that there is a distinct break between elementary school and secondary school and that graduating exercises are appropriate and significant. A diploma or certificate is granted and the processional to "Pomp and Circumstance," speeches, and attendance of the relatives all resemble a miniature high-school graduation ceremony.

The other school of thought maintains that there is no graduating, that going from sixth grade to seventh grade should be a smooth, natural, and uneventful transition, just as ordinary as going, for instance, from fourth grade to fifth.

Graduation exercises or not, in June these sixth-grade boys and girls do leave the elementary school and our particular elementary school building. When we have sent them on their way, well prepared, eager, full of anticipation, and happy (though, at the last moment, they have mixed feelings about leaving), we are proud. What a satisfaction, not only for the sixth-grade teacher, but for all teachers, from the kindergarten on up, who, in one way or another, have made contributions to the education and welfare of these children.

So there they go, and we will miss them. Some will tell us not to get sentimental. Don't listen to them! As teachers, we should be sentimental. There are times and places for sentimentality as we work with boys and girls in the elementary school.

Composite School is dismissing. The children are on their way home, and the staff is heading for a building meeting.

There is much more to Composite School than we have seen today—the handling of a serious pupil accident, a fire and disaster drill, a P.T.A. meeting, a staff party (to have fun together and to get to know fellow-workers better), an all-school assembly, playground “Clean Up” day, a clothing drive, a room with three-fourths of the pupils home with mumps, a teacher returning to take over from her substitute, and the staff meeting. Each teacher has a role and a responsibility in the teachers’ meeting. Each has an obligation for the content of the agenda and the decisions to be made. Each should add his talent and his thinking to the discussion of the matters at hand, helping to make each meeting fruitful and worthwhile.

This is an elementary school—Composite School, U.S.A. With the insight this visit has afforded you, together with the knowledge and understanding you already have, we enter into the study of theory and practice in the elementary school curriculum.

SUMMARY

The curriculum changes in content, approach, organization, and dimension as we view it from kindergarten through grade six. The children change, too, calling for constant pupil guidance. This becomes more obvious as we go through grades four, five, and six. New problems arise, requiring constant study and solution.

Co-curricular aspects of the school and of teaching demand thoughtful and co-operative attention. Among these are the organization and supervision of the playground and the lunchroom, handling of illnesses and accidents, and working with parents and the community. Even matters of pupil dress come into the picture.

Staff co-operation, staff harmony, and school loyalty become important as we think of the complexity and responsibility of our jobs as educators.

We begin to see more clearly our individual responsibilities—our challenges and our opportunities—as we contemplate entering our first classroom and meeting our first group of boys and girls.

PROBLEMS AND DISCUSSION TOPICS

1. A. What is meant by the following statement: “In grades five and six, reading instruction will be integrated with the study of other school subjects.”
B. What significant advantages and disadvantages can be stated

pils? What are some guiding principles in creating and operating a student council?

WHAT WOULD YOU DO?

During the fourth month of your first year of teaching, the teacher who sponsors and directs the Student Council resigns and leaves the school. The principal has been unable to find any teacher who will take over the Council. Finally the principal asks you to do it.

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- in support of and in opposition to the plan of integrating reading with other subjects?
2. Organize a debate in your class on the following question: "Resolved: That teachers cannot be held responsible for pupil achievement when schools permit children to be dismissed from class for out-of-school activities."
3. Discuss carefully:
 - A. The fifth-grade pupil is better educated in a completely departmentalized school because he is instructed by teachers who are specialists in their subjects.
 - B. The self-contained classroom provides optimum instruction for fifth-graders, since teachers can become intimately acquainted with their pupils.
 - C. The school which is organized on a semi-departmentalized day for the upper grades is the best type of organization because it combines acceptable features of both the self-contained classroom and departmentalization.
4. In your sixth-grade class, you have the following number of pupils absent at different times for these in-school activities:

Instrumental music	5 pupils
Speech correction	2 pupils
Safety and service clubs	9 pupils
Remedial reading	3 pupils

 - A. What problems do these absences create for you?
 - B. Would these problems be solved if such activities were held before or after school?
 - C. Are these not, however, valid educational activities and a necessary part of some pupils' education? Defend your answer.
 - D. What might be some appropriate solutions to problems occasioned by these absences from your class?
5. What are considered *adequate* playground facilities, equipment, and space for effective play in the elementary school?
6. What are some factors which elementary school teachers should consider in classroom and hall bulletin-board displays?
7. Discuss the implications—the advantages and disadvantages for the education of elementary children—of the practices described on pages 29–30 under the heading *The Educational Pendulum*.
8. Defend the following statement: "Money spent to provide a community room in the elementary school is a worthwhile expenditure by a board of education."
9. What are some ways in which classroom teachers may use the school public-address system in enriching curriculum? List some misuses of the P.A.
10. What school services may be performed by the elementary student council? What are the advantages of the student council for pupils?

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CHAPTER 3

CURRICULUM FOUNDATIONS IN THE ELEMENTARY SCHOOL

WHAT IS CURRICULUM?

We have visited the elementary school. We have seen that it provides a wide variety of experiences and activities for children, and indeed, its program must meet a broad range of interests, needs, and abilities of those who spend so much time in it.

At this point, you may be asking yourself such questions as these:

"What is the purpose of today's elementary school?"

"Who are these youngsters who populate our elementary schools?"

"What are they like? How do they grow? What is the relationship between their development and our teaching?"

"By what means will I be able to help them learn?"

"Who determines what we shall teach in the elementary school?"

And you may have other questions. We can't anticipate all of them. But let's examine together what appear to be some fundamental areas concerned directly and indirectly with curriculum foundations of the elementary school. We should then be able to delineate a few closely related characteristics of the children you have just observed. At this point we should begin to understand better how learning is related to teaching and to the curriculum in Composite School, U.S.A.

As interpreted in this text, education must consist of meaningful and purposeful experiences if it is to have permanent usefulness. Curriculum is viewed almost synonymously with the term "education" *when the experiences are those for which the school accepts responsibility*. These curricular experiences are organized and guided in order that acceptable objectives and needs of children may be met. In the modern elementary school, these activities are sequentially planned, so that pupil needs—social, emotional, intellectual, and physical—will be satisfied.

TYPES OF CURRICULUM ORGANIZATION

In the American elementary school there are at least four ways in which learning experiences in the curriculum are organized. Some elementary schools teach *each subject separately*. If you were to examine the teacher's daily program in the separate-subjects curriculum, you would find a number of minutes devoted to each subject—spelling, reading, arithmetic, language, physical education, and so on. This is the most common pattern of curriculum organization in our elementary schools.

A second type of organization is that in which subjects are so related that learning in one reinforces learning in the other. This is generally known as the *correlated curriculum*. In the correlated pattern, each subject maintains its identity and its separate time in the class schedule. The attempt at correlation is made through the study of similar topics in each of two or three subjects. For example, in history, a sixth-grade class may be studying Jefferson and the Louisiana Purchase. The same class would study Louisiana during geography periods, and required spelling words could be drawn from materials in both history and geography.

In another elementary school there may be a combination of broad fields of learning where, for example, spelling, handwriting, reading, and language skills are taught as the language arts. Similarly, geography and history may be taught as one subject area, the social sciences. Such organization is called the *broad-areas curriculum*.

A fourth method of organizing learning in the elementary school is that of determining the basic needs of children (social, emotional, physical, and intellectual) and then planning activities and experiences specifically to meet these needs. Some authorities in child development have referred to these needs as developmental tasks. There are certain developmental cycles through which children pass, and these cycles or stages are met in the same sequence of development. These needs have become the bases for the fourth type of curricular organization—the *needs-development curriculum*.

From the point of view of human growth, the last type is perhaps the most acceptable, because it is based largely on readiness, motivation, individual differences, and the realistic needs of children. It is the least common, however, because it is difficult to organize and because it represents the farthest extreme from the traditional, separate-subjects curriculum. The middle patterns described above (correlated curriculum and broad-areas curriculum) are attempts to bring into meaningful relation the various subjects taught in the class. They are more acceptable in almost every way than the separate-subjects plan for the elementary school.

THE CHILD AND THE CURRICULUM

It is for the child's development that the curriculum is planned. Consequently, significant and fundamental principles of child growth and

development must be a part of the foundation upon which curriculum is built. Some of the most important principles are mentioned in the following paragraph.

The curriculum must recognize that each child is unique: that he differs from every other child in level and rate of growth. Growth is an active process of maturation. It is assimilative, it is selective, and the learner is goal-seeking. There is a continuous tendency toward unity in growth, which means that when we view children as "wholes" they are more alike than they seem when we observe only the parts of their behavior. For the curriculum, this implies that children do not learn only one thing at a time. If growth is assimilative and if the organism is goal-seeking, then a child may learn many things at once. Another evident curriculum implication is that the more the teacher is able to present subject matter as related to other subject matter, the more effective the learning. The greater the extent to which curriculum gives attention to these facts of child growth, the better it serves the teaching-learning process.

CURRICULUM AND LEARNING: PSYCHOLOGICAL FOUNDATIONS

No one is absolutely certain what takes place when a child learns. Teachers and parents observe behavioral changes and then conclude that learning has been achieved. *Learning may be defined as change in behavior through interaction between the learner and his environment.* We know that learning is a complicated, mental process involving investigations and conclusions and reconstruction of experiences resulting from such conclusions. Hence, learning is an individual process: no one else can do these things for the learner. Psychological research and observation of the learning process point to these facts about learning:

1. Learning is not an intermittent process; it is going on all the time.
2. Learning is a multiple process. We learn many things at the same time.
3. Learning is affected by the emotional and physical conditions of the learner.
4. Learning is best served when the learner has appropriate motivation.
5. Learning is best when the results are satisfying to the learner.
6. Learning is related to the maturity of the learner.
7. Learning is accomplished more quickly when it meets the needs of the learner.
8. Learning readiness depends upon mental and physical growth, upon previous experience, and upon the interest of the learner.
9. Learning is affected positively when verbal instruction extends experiences, but such verbalization cannot substitute for those experiences.



NOT ALL LEARNING IS CONFINED TO THE CLASSROOM.

10. Learning is made more difficult when what is learned is not recalled or used frequently.

Our knowledge of how children learn leads us to this cardinal conclusion: Since learning occurs through experience and since the result of this experience is manifest in modified behavior of the child, teachers cannot "pour in" facts, skills, attitudes, and knowledge. Rather, children learn because they have a purpose, and the optimum kind of learning situation provides meaningful goals for the child and opportunities for selection by means of trial and error and application of previous experience.

The effective curriculum recognizes that maturation factors and experiential background condition readiness to learn. Thus the teacher provides new activities attuned to the child's level of development. He recognizes that rote learning is often uneconomical, since retention is frequently low. He is aware that the child functions as an organic whole—not as a batch of unrelated, independent skills and reflexes—and subsequent curricular instruction aims at integrating learning and personality. In his teaching, he tries to avoid the partitioning of skills instruction today, knowledge tomorrow, attitudes next week, and the concepts and generalizations next semester. The teacher's knowledge of

child growth and development and psychology of learning is observable in the curriculum. There is awareness that

The child is not a passive recipient of stimulation. He reaches out for it according to the maturity of his total and partial growth and the energy at his disposal. He reacts selectively to the surroundings that are supplied and creates his own world of experience within them. He tends to reject the experiences for which he is not ready.¹

SOCIETY AND THE CURRICULUM: SOCIOLOGICAL FOUNDATIONS

The curriculum content of the elementary school is shaped by societal customs and society's desires in social, political, and economic matters. First and foremost, education must contribute to the preservation and progress of society. We recognize, for example, that the development of the child is conditioned by his social environment, that the realization of ideals and attitudes held by society helps prepare the child to fit into that society, and that the elementary school curriculum must reflect these expectations of the community. A sociologist says of education:

Education is concerned with teaching the members of society how they are expected to behave in a variety of situations. This means that education deals with the development of, and changes in, human behavior. Much education involves transmitting to the young skills, beliefs, attitudes, and other aspects of behavior which they have not previously acquired. In the older age groups particularly, it involves substituting new ideas, beliefs, and skills for previously acquired ones. In any event, education is the process of teaching and learning expected patterns of human conduct.

The second premise is that human behavior is essentially social. Of course, some behavior is learned with little or no interaction with other persons, but only a small proportion of the activities of the human being is performed without reference to other human beings. Behavior is either in direct association with others or it is greatly influenced by previous associations. Nearly all of what we learn comes as a result of direct interaction between teachers and learners in the family, on the playground, in school, and in the whole wide range of adult educational experiences. Nearly all education, therefore, involves socially oriented activities. Definitions of what is to be taught, either in or out of school, are also socially derived. The content of education—what is to be taught and what omitted—is determined by the group of which the student is a member. Of course, individual characteristics of the child or youth being taught are also factors in the learning process, but in a real sense, education is a social process. This is true because of the nature of

¹ Willard C. Olson and Byron O. Hughes, "Concepts of Growth—Their Significance to Teachers," *Service Bulletin*, Association for Childhood Education (Washington, D.C.: 1201 Sixteenth Street, N.W.), pp. 5-15.

the behavior to be acquired and also because of the process by which learning occurs.²

These purposes are not novel in the American elementary school: adjustment of the young to adult characteristics and mores even in primitive times was a significant goal. The Greeks and Romans also recognized the importance of social education. In fact, anthropological studies have indicated that inculcation of youth into acceptable beliefs, attitudes, and traditions of the adult society has *always* been a dominant aim in any social structure. Brookover makes the following further observation:

Education is synonymous with socialization. It includes any social behavior that assists in the induction of the child into membership in the society, or any behavior by which the society perpetuates itself through the new generation. Margaret Mead uses this term in this sense when she defines education as "the cultural process, the way in which each newborn human infant . . . is transformed into a full member of a specific human society." James B. Stroud also defines education as the process by which societies perpetuate or renew themselves.³

In general, we may assume that every American community supporting an elementary school will expect the curriculum to include content and method which will result in the acquisition by pupils of certain basic knowledge or skills in:

1. Communication: reading, spelling, writing, and speaking
2. Ideals of democracy
3. Mathematical understanding
4. Understanding and practicing satisfactory health habits
5. Emotional control
6. Satisfactory human relations
7. Scientific understanding
8. Knowledge and appreciation of historical contributions
9. Geographic knowledge
10. Aesthetic appreciation

Society, in effect, has stated that the curriculum of the elementary school *must* embrace these learnings for its young. *This is the genesis of the curriculum.* It is why our schools are operated. The elementary school is not charged by society to perform the total job; there seems to be agreement that its role is to provide the basic tools of social education, to develop effective habits of social relationships, and to start the

² Wilbur B. Brookover, *A Sociology of Education* (New York: American Book Company, 1955), pp. 3-4.

³ *Ibid.*, pp. 4-5.

child on his way toward the acquisition of fundamental techniques of learning.

Wilds summarizes an additional sociological objective of the curriculum—to plan for the continuous appraisal and readjustment of the education program to fit changing conditions.

The pupil must be trained in the intellectual processes indispensable to the co-operative functioning of society. He must learn the sources of factual information about the realities of social conditions and social problems; he must gain skill in selecting, checking, and verifying these sources for their authenticity and reliability. He must be taught to discover and to state the various sides of controversial issues through group discussion and thinking. In other words, the pupil must be taught to think; to make wise decisions in his choice of alternatives and sound conclusions in reference to controversial issues. In the training of the emotions, emphasis is placed upon the elimination of fear, prejudice, and the crowd emotions that lead to unintelligent and irresponsible social action.⁴

Rugg and Withers speak of the school's responsibility for guided living.

We conceive the school to be an enterprise in living; hence, what was narrowly and forbiddingly called in the old education "the curriculum" becomes in the new education "the life of the school." Every aspect of a truly vital education partakes of life itself; the school becomes a school of living . . . learning is seen as living through novel situations . . . the curriculum becomes the very stream of dynamic activities that constitute the life of the young people and their elders. Thus, the new school is a social enterprise in living. But it is more than that; it is an enterprise in *guided living*. Guidance of immature learners by more mature teachers is the distinctive mark of an *educational enterprise*.⁵

The implications for curriculum of continuous appraisal and readjustment to fit changing conditions must also be weighed in the light of how well the school meets the responsibilities of childhood. When we first enroll the child in the elementary school, he has already learned many things which are demanded of him. These include simple tasks of walking, talking, eating, controlling body functions, and relating to others. Society expects the elementary-school teacher to help children in further bio-social development. Added to these are others for which the school must assume responsibility. The effective school curriculum includes them for *all* children but in varying degrees for individual pupils.

⁴ Elmer Harrison Wilds, *The Foundations of Modern Education* (New York: Rinehart and Co., 1942), pp. 578-79.

⁵ Harold Rugg and William Withers, *Social Foundations of Education* (Englewood Cliffs, N.J.: Prentice-Hall, 1955), pp. 38-39.

Society is interested in the *content* of the elementary school curriculum, and the spokesman for society is the sociologist. Havighurst lists the following six developmental tasks for the elementary school curriculum:

1. Learning to care for and use the body in effective fashion.
2. Getting along with age-mates in a constructive pattern of social interaction.
3. Learning an appropriate masculine or feminine role.
4. Acquiring a set of values and an ethical system as guides for behavior.
5. Achieving personal independence from controls by others.
6. Learning appropriate social attitudes toward institutions and social groups.⁶

To have a clearer insight into the sociological foundations of the elementary school curriculum is to better understand the American people and factors conditioning their behavior. In the first place, the democratic ideal is a tradition basic to our peoples. The American believes that the individual is more important than the state, and he insists on having a part in determining, through freely elected representatives, the actions of his government. This strongly implies that our children shall be inducted into the ways of a free and democratic community, that the teacher shall play a very important part in inculcating this belief. This objective can be achieved only by guiding children in appropriate practices of democratic behavior; the teacher cannot teach the ideals of democracy simply by verbalization. Thus, methodology in curriculum is affected.

Persons in a democratic society believe that laws affect all citizens equally. School and classroom instruction must be so organized and carried out through the curriculum that children are helped to realize this belief.

Another traditional belief in American society is the right to worship according to one's religion. The role of the curriculum here is to provide opportunities for the child to understand and to appreciate these different religious beliefs in America by helping him become more aware of differences and respectful of them.

Our society also accords guarantees and rights to minority groups. The authors believe that present-day elementary schools are making good strides in helping children recognize and understand minority rights and privileges. Deep-rooted prejudices, misinformation, unsatisfied egos, and economic and political issues appear to be the reasons why our adult society hinders progress where the need is greatest. However, this does not negate a principle of a free society; neither is the problem solved by hiding our heads in the sand and, as teachers, doing little

⁶ Robert J. Havighurst, *Human Development and Education* (New York: Longmans, Green, and Co., 1953), p. 93.

or nothing to help boys and girls to an awareness that in some sections of America this particular objective has not yet been attained. This is a curricular and a professional challenge to American education.

Significant also are technological and economic conditions affecting our livelihood, ever-increasing urbanization, and the interdependence of individuals in our society. These are highly important influences upon our people, and they, too, must be understood and dealt with in our curriculum.

HISTORICAL FOUNDATIONS OF ELEMENTARY CURRICULUM

Since aim and content of education reflect cultural process and since one primary purpose of education is the perpetuation of society, present curriculum design is better understood when viewed in historical perspective. A review of significant goals in the history of education and a summary of content should provide for future teachers more objective means of analyzing present practices in the elementary school. Several years ago Mulhern indicated some of the values in studying the history of education:

It is the stairway to the giant's shoulders from which the teacher gets a clear vision of past achievements, and a view of the unexplored region ahead.

It is the logbook in which is kept the record of educational progress humanity has thus far made, and of our present position.

It is the compass and the polar star by which we ascertain the course education ought to pursue in the future.

It is the ever-wakeful attendant that constantly reminds us, lest we forget, that there are dangers along our course; and that any society that aspires to a better life must build consciously and energetically.

It is a sieve by which the chaff of tradition is separated from the grain.

It is the synoptical introduction to nearly all professional educational studies.

It cultivates the mental question mark, which distinguishes the critical and enlightened teacher from the uncritical and the unenlightened one.

It contributes to the development of that professional enthusiasm without which great effort and notable achievements are well-nigh impossible.⁷

All cultures have provided some system of education to meet vocational, religious, traditional, and intellectual needs of society. A study of selected goals and content from various historical periods reveals that although some educational systems were more informal than others, all provided training to meet a wide range of purposes. It is interesting to note the differences and the similarities in the historical comparison presented here.

⁷ James Mulhern, "The Significance of the History of Education in the Education of Teachers," *Educational Outlook*, Vol. X, No. 3, March, 1936, pp. 167-181.

HISTORICAL COMPARISON OF EDUCATIONAL GOALS AND CONTENT

PERIOD	GOALS OF EDUCATION	CONTENT OF EDUCATION
Ancient	Human satisfaction through work; religious security; compliance with tradition.	Training in responsibilities necessary to satisfy basic needs: family, food, shelter, religion, tribal traditions, and ceremonies.
Asiatic	Preservation of traditional duties; protection and preservation of caste and class system; development of nationalist ideals; development of militaristic spirit; training for war; study of the virtues of the citizen.	Vocational duties and responsibilities; religious training; intellectual training for the ruling classes; training for religious leadership; military sports, skills, and tactics.
Jewish	Religiousness and holy righteousness; vocational and professional training.	Study of Jewish or Mosaic Law; reading, history, music, handwriting, and mathematics.
Greek	Development of aesthetic appreciation and ability; understanding of basic philosophy; civic understanding; creative personality; development of the intellect or the aim of "wisdom"; importance of training in courage, bravery, and physical skills.	Reading, writing, arithmetic, grammar, philosophy, music, physical education, art, history, and law.
Roman	Training skilled warriors; development of courage, bravery, and the intellect; importance of nationalism; civic and vocational training.	Reading, writing, arithmetic, history, military science, grammar, music, and law.
Christian	Morality and religious development; temperance; brotherhood of man; purity of soul; conversion to faith and service to God; entrance to heaven and life after death.	Morals and religion; literature; grammar; and philosophy.
Medieval	Moral discipline; renunciation of worldly things; spiritual growth; chastity; poverty; obedience; surrender of family, political, and social relationships.	Trivium: grammar, rhetoric, and dialectic; the Quadrivium: arithmetic, geometry, astronomy, and music. In addition, reading, written composition, church law and canons.

PERIOD	GOALS OF EDUCATION	CONTENT OF EDUCATION
Later Middle Ages	Training for a livelihood; vocational education; preparation of individuals to develop and carry on trade, manufacturing, and commerce.	Arithmetic; reading; book-keeping; religion; handwriting; law.

The curriculum in the present-day elementary school has its origin in the steps taken to educate children throughout history. Although purposes, content, and methods of instruction may differ greatly from those of past societies, the over-all objective is the same: to train the young in the ways of society. Study of the history of education reveals that our earliest civilizations provided both practical and theoretical training for children. Practical training helped the child to learn ways of making a living, prepared him to accept future family responsibilities, and in a general way, to adjust to his culture. Modern elementary education still preserves some of these purposes.

An examination of curriculum in today's schools presents a great deal of evidence to show that content has changed to meet the needs of society. For example, the American elementary school teacher once taught surveying and astronomy and the use of the compass in navigation. These subjects were needed in the development of a new country and the establishment of a growing commercial nation. These are not emphasized today in the elementary school because society desires that the curriculum meet different needs.

PHILOSOPHICAL FOUNDATIONS OF ELEMENTARY CURRICULUM

If teachers are to better understand curriculum, they need to re-trace some of the thinking which has attempted to answer questions of "*why*." *Why* do we have a kindergarten? *Why* is the study of child growth and development important? *Why* has the method of teaching reading changed considerably during the past fifty years? *Why* have geography and history as separate subjects been replaced by social studies? *Why* have many schools substituted parent-teacher conferences for written reports?

The history of education provides a basis for comparing educational systems; sociology supplies us with answers relating curriculum to the culture; and psychology helps teachers understand and evaluate the learning process. Knowledge in these areas also provides a footing as teachers study the content of the elementary school curriculum, for each is closely related to what we teach. But these foundations do not necessarily give us answers to our "*why*" questions.

As we seek to comprehend why certain practices are followed, we must turn to another significant foundation area: philosophy of education. What went on in man's thinking to cause drastic changes in the purposes of education? Have shifts in curriculum emphasis resulted

from rational thinking or did they just happen at the whim of some political or religious leader? Philosophy seeks answers to these kinds of questions.

It should also be noted that philosophy does not confine its influence to a single rung on the educational ladder. The philosophies and men discussed in the next few pages have been selected because their influence, if analyzed carefully, can be found significantly related to the education of young children.

EDUCATIONAL PHILOSOPHIES

Prior to the Renaissance in Western Europe, educational methods and content had undergone few tests in successive eras to answer the question "Why are educational programs pursued in a particular fashion?" There had been little attempt to determine and crystallize educational thought. We cannot here study the whole field of educational philosophy, but we will discuss some of the ideas which have contributed significantly to the philosophical foundation of Composite School, U.S.A.

HUMANISM

The accepted philosophy of education in our elementary schools is founded upon the ideas expressed by the humanists: Petrarch, Guarino Da Verona, Vittorino, Erasmus, Johann Sturm, Colet, Galileo, da Vinci and others. We owe to the thinking of the humanists the following ideas which are deeply imbedded in the foundation of elementary education: interest in the learner as an individual personality; emphasis upon democratic instructional procedures; education for all, since humanism stressed enlightenment of the masses; the importance of emotional life; and the stress upon aesthetic appreciations. The humanists believed in self-expression and the right of the individual to think for himself. In addition, the humanists opposed harsh disciplinary measures in dealing with children, and they advocated praise and interest by the teacher as superior motivation for children's learning.

MORALISM

Although the moralists repudiated many of the humanists' ideas, the moralists nevertheless made contributions to the main stream of present-day elementary education philosophy. Leaders during the sixteenth-century Reformation who helped to shape present-day educational thought were Luther, Zwingli, Calvin, and Knox. Intellectual individualism was indirectly encouraged by the substitution of the Bible for the church as the source of religious authority. This meant universal reading instruction in the schools if the individual was to be able to interpret the source of authority. In a way, the present social aims of education were emphasized by the moralists in their stress on education for the home, the community, the state, and the church. Reformation leaders were among the first to attach great importance to the education of *all* children.

REALISM

In many respects, the philosophy of the humanists and particularly that of the moralists was narrow in scope and had religious training as the central objective. Realism was the name applied to the theory which advocated that education must be concerned with all of life's realities. Rabelais, John Milton, Montaigne, Francis Bacon, and Comenius may be listed as among the principal realist scholars and writers whose philosophy has affected the curriculum of the elementary school. Science and the objective spirit of inquiry were given great impetus by the realists. They believed in the importance of practical education; in the study of foreign language in the schools; in the role of the teacher in guiding personality development of children; in the importance of arithmetic and physical science to total educational development; and in the value of games, free play, and physical activity. Comenius gave expression to the importance of education for all children, and he insisted that the hope for humanity and raised standards for all peoples lay in the ability of society to improve education. From the realists we got our ideas of the use of concrete objects in teaching, of fitting instruction to the ability of the child, and of learning by doing.

RATIONALISM

Rationalism developed as a philosophy along with disciplinarianism. Both ideologies followed after the realists, and both were opposed to the doctrine of universal education. Locke, Voltaire, and Diderot set forth the educational beliefs of the eighteenth century: in the first place, education should be provided only for the few—those able to benefit from it as rulers of social, political, and industrial life. Education should emphasize training of the intellect. Content should be so organized that each concept is preceded by a less difficult one. Drill and repetition were recommended as important ways to learn, and education was looked upon as a fixation process fitting various faculties of the mind. The teacher's job was to work with children so that they developed intellectual faculties or abilities through repetition. The influence of this philosophy was so great that subjects to which drill could be applied naturally became the central part of the elementary school curriculum. Spelling, formal grammar, and arithmetic were therefore emphasized to the neglect of the physical and social sciences. This philosophy has persisted; there are still many teachers in our elementary schools who subscribe to the idea that drill and frequent repetition are of first importance in learning. Rationalism advocated training the child to think for himself. This theory, too, is a very important one in today's elementary school.

FORERUNNERS OF MODERN EDUCATIONAL PHILOSOPHY

During the past two centuries there have been many scholars who have had great impact on educational thinking and on practices in the ele-

mentary schools. Although there are at least a score of names in philosophy of education worthy of study for their contributions to educational theory and practice, we have selected five on the basis of their widespread influence on elementary education.

JEAN JACQUES ROUSSEAU (1712-1778)

In 1762 Rousseau wrote *Émile*, in which he stated the doctrine of naturalism: education must aim at the development of a society where individuals can realize equality, fraternity, simplicity, and liberty; the individual and natural rights of man are superior to the established social systems which forced conformity on the people. Rousseau espoused an educational system which would exclude the children of the poor. Children of the ruling class were to be trained, primarily in a tutorial method, so that natural inclinations would be considered and developed. Training in adjustment for later life was considered important. Education should aim at the natural development of children, and such subjects as reading, writing, arithmetic, and foreign language in formal study should be excluded from the curriculum. Rousseau opposed the teaching of religion to children, and he did not believe in education for girls. However, the role of the parent was given much emphasis in the education of children.

Rousseau's influence on modern-day elementary school curriculum was greatest for the following theories, which are still recognized in elementary education: education must adapt itself to the natural growth and development of the child; pupils learn best when motivated by a "doing" activity; and education, to be effective, must recognize that each child is different from every other child.

JOHANN HEINRICH PESTALOZZI (1746-1827)

Pestalozzi was Swiss born and educated. He was greatly influenced by Rousseau, but unlike Rousseau, he had much opportunity to try out his theories of education. For several years he directed an elementary school at Burgdorf. Later he turned his attention to the training of elementary teachers at Yverdon, where his philosophy of education and methods of teaching were copied by educators from all parts of the world. Pestalozzi believed that society could be changed and the lot of mankind improved through education. Some of his significant theories which relate to our present elementary-school philosophy are these: The child should be provided with proper conditions for growth in the school—attention must be given to individual differences among children; teachers must be informed about each child's interests, needs, and capabilities; the education of the child is a continuous process, and hence a fragmented curriculum hinders his learning and his intellectual growth; education cannot be poured into the mind, since its effectiveness depends upon the natural acceptance and desire for growth by the child. It should not be difficult for today's prospective teacher to see correspondence be-

tween this philosophy and current theories of child growth and development.

FRIEDRICH WILHELM FROEBEL (1782–1852)

Froebel was a contemporary of Herbart and Pestalozzi; in fact, he studied for several years at Yverdon under Pestalozzi. During his middle twenties he established his own private school. However, this school was a financial failure, and he subsequently taught for several years in elementary schools in Switzerland. His famous book, *The Education of Man*, was published when he was forty-four. Froebel's most important contribution to the elementary school of today is the Kindergarten. His "School for Little Children" was opened in 1837 in Blankenburg, Germany. For the first time, a formal school for the four- and five-year-old was established. Froebel spent the last fifteen years of his life in giving solid curricular foundation to the Kindergarten—a foundation which has not changed much since its establishment.

EDWARD L. THORNDIKE (1874–1949)

Thorndike has exerted great influence on all phases of American education, especially in psychology and in the application of statistical measurement to educational practice. Thorndike believed that the broad purpose of education is to help man achieve a better life through full satisfaction of his wants. For many years, Thorndike was a leader in research associated with behavior or habit and the relationship between behavior and learning.

This great scholar has had more lasting influence on the belief in the value of drill in teaching than has any other American. His earlier studies, which resulted in the "Stimulus-Response" theory or neural bond connectionist theory, are still followed by many teachers. One has only to observe spelling or arithmetic classes in many schools to perceive the influence of Thorndike on present-day curriculum practice.

JOHN DEWEY (1859–1952)

John Dewey had more to do in directing the thinking of modern-day educators than any other scholar. Of the modern philosophers who have exerted great influence on education, none stands as high as Dewey.

He established the Laboratory School at the University of Chicago and there from 1894 through 1906 had opportunity to experiment in testing his philosophy and in crystallizing his ideas. It would be impossible to interpret completely and correctly Dewey's philosophy in this discussion. Controversy has raged the world over during the past half-century about what Dewey wanted in education. In fact, our own interpretation is that no final determination of his philosophy was possible for him, since such determination at any one level in thinking merely set the stage for further analysis and hence new conclusions;

the new conclusion would lead again to re-thinking, analysis, experimentation, and still different horizons.

Our purpose, then, is to try to pick our way in summary fashion through the maze of voluminous writing and the varied, conflicting interpretations of the Dewey philosophy in order to attempt to show the reader certain relationships of this philosophy to elementary education. We do this in a spirit of humility, for the writers are in no sense of the word experts in philosophy. We strongly recommend that students read Dewey's *Democracy and Education* if they desire to study the most complete statement of his philosophy.

Dewey has been even more difficult to interpret because many of his outstanding followers have not always agreed on the meaning of his ideas. Perhaps it is not incorrect to say that the writings of such men as Kilpatrick, Bode, Counts, and others have been considered extensions of the thinking of Dewey, and consequently the teacher's interpretation becomes increasingly more difficult.

The Dewey philosophy, generally referred to as *experimentalism*, rests on the theory that teachers must be vitally concerned about the social implications of education. We have already indicated the main points of this philosophy in our discussion of teachers' need for an understanding of sociology (page 45). We have also indicated that children are conditioned by their social environment and that learning is not an end in itself, since it is, in the last analysis, a preparation for living in a society. Hence, education must serve the welfare of that society. The social implication of education became the cornerstone of Dewey's philosophy. This sociological purpose—training the young in the ways acceptable to society in order to perpetuate the culture—is as old as civilization itself. Yet Dewey's implementation of this purpose in today's schools has been maligned and cast aside by his critics with the interpretation, "knowledge and scholarship are forsaken for efforts at 'social adjustment.'"

In Dewey's beliefs these two (knowledge and adjustment to life) are not antagonistic. As we interpret Dewey, social education includes all education that better prepares children to live together with others. By no means does this exclude training in skills, basic fundamentals, knowledge, and subject matter. As recently as 1958, one of Dewey's ardent supporters, himself a pioneer in experimentalism, wrote:

Knowledge is an essential; much thoughtfully digested knowledge. But life is ill-served by memorizing book knowledge. Our better elementary schools teach more knowledge and teach it better than did the older type schools. These better schools aim at life, at all-round character, not simply at book knowledge; and they develop a richer and better character for meeting life's needs than did their predecessors.

Three specific sources are here quoted in support of the assertions just made.

1. Dr. Ralph Tyler, America's foremost student of educational evalua-

tion, says explicitly, on the basis of definite tests, that sixth grade pupils today equal the eighth grade pupils in the 1920's.

2. Dr. George D. Strayer, who has surveyed more school systems than anyone else in the United States, says: "On the fundamentals, children today are doing much better than their fathers or mothers or grandparents did. They are reading more, and they read better; they spell better, and they are as competent in the fundamentals of arithmetic as any other generation, and they write better and more interestingly than their parents did."
3. An eight-year comparative study was made of the graduates of six progressive high schools and an equal number of graduates of non-progressive high schools. After graduation from college, the graduates of the progressive high schools were described as follows: "Consistently high academic averages and more academic honors . . . clear-cut superiority in the intellectual intangibles of curiosity and drive . . . the intelligence and ability to think logically and objectively, and active and vital interest in the world about them. They were more frequently concerned with democratic values and the importance of assuming their share of responsibility for the general welfare . . . more often tolerant, cooperative, and self-directing."¹⁴

Dewey and his followers believed that the purpose of education was life itself, and its goal was to make life as full, as fine, and as rich as possible. Dewey felt that education must develop a new conception of behavior, and that behavior, as a result of thinking, must be directed to efforts in meeting life situations; that the function of thinking results in steps toward a better life for the individual.

Dewey's philosophy has resulted in the belief that Composite School, U.S.A., should provide basic tools of social living for children and include direction and practice in habits of effective human relations. The fact that these purposes are significant has resulted in the recognition of the place of co-curricular activities in our schools. The elementary school has also become a primary social agency. This added function of education has changed the nature of the elementary curriculum from that of a rather narrow subject-matter offering to the program which you became familiar with in the two introductory chapters of this text.

SUMMARY

The teacher's understanding of curriculum foundations is reflected in his teaching. Absence of foundation knowledges is revealed in the classroom by the teacher's failure to recognize any curricular organization pattern except his own, by his inability to defend appropriately and

* From an interview with William H. Kilpatrick, by United Press, International, quoted in the *Lansing State Journal*, Lansing, Michigan, November 6, 1958.

wisely his teaching method and content if they differ from those which are commonly and traditionally accepted, and by his inability to see positive relationships of his teaching to community desires and values for education.

On the other hand, the teacher whose background includes a practical understanding of psychology, philosophy, sociology, and history and who shows promise in ability to relate these disciplines to his everyday teaching, has become an educated person, a person whose specialization is, in fact, general education. When we view the elementary teacher in this perspective, his major subject undoubtedly consists of a broad, liberal education. This alone will not necessarily make him a superior teacher, but learning in these foundational areas is necessary if a person is to become a competent teacher.

Our best elementary teachers combine a functional knowledge of foundations of education with understanding of what curriculum is and why it exists and operates the way it does. Foundations of education provide teachers with solid bases for asking "Why?" and for answering judicious questions and criticisms about their professional work. You may hold your job and draw your pay without this foundation. But *with these understandings* you may become an outstanding teacher of boys and girls. You owe it to yourself and to your pupils to try to gain this background and build upon it for your teaching.

PROBLEMS AND DISCUSSION TOPICS

1. Curriculum is synonymous with the term "education" when the experiences are those for which the school accepts responsibility.
 - A. What educational experiences can you list for which the school accepts *no* responsibility?
 - B. Would your list for one elementary school be the same as that for all other elementary schools?
 - C. If not, does this change the meaning of curriculum? Explain.
2. What are the four commonly known ways for organizing the elementary-school curriculum? Which plan is the most popular pattern in the United States? What are the disadvantages of this plan?
3. Research in child growth and development has established several significant principles which affect learning. Examine the factors of learning on pages 41-42 and discuss general implications for teaching in one of these situations. Choose the situation which may best represent your teaching interest:
 - A. The kindergarten
 - B. Third-grade vocal music
 - C. Sixth-grade arithmetic
 - D. Elementary-school science
 - E. First-grade reading

- F. Physical education
- G. Art
- H. Creative writing
- 4. Society wants the elementary school to achieve certain goals. Which of these goals do you consider (a) necessary for *all* children? (b) necessary for *some* children? (c) desirable for *some* children but unattainable for *all* pupils?
- 5. If pupils do not learn ideals of democracy through verbalization, how can these ideals be learned?
- 6. In what important respects has urbanization affected elementary curriculum?
- 7. Examine the historical comparison of educational goals and content presented in this chapter. Are there some goals common to all cultures? Do you think the objectives of education for one period should be the objectives for all other periods? Why or why not?
- 8. What is considered the main contribution of the philosophy of education to curriculum? In other words, what is the *function* of educational philosophy? How does a knowledge of educational philosophy help the elementary classroom teacher?
- 9. Relate these philosophies to elementary school curriculum: (a) humanism, (b) Realism, (c) Rationalism.
- 10. In what specific manner did the work of the following people greatly affect present-day elementary school curriculum: (a) Rousseau, (b) Pestalozzi, (c) Froebel, (d) Thorndike, (e) Dewey.

WHAT WOULD YOU DO?

You are teaching a sixth-grade class in Composite School. During the year you have tried to foster in pupils a love and appreciation for language, including the beauty of words in many kinds of literature. Among the selections you have chosen to read to the class are some beautiful passages from the Bible. Your purpose is to provide instruction and practice for pupils to determine *why* these are examples of fine use of language. After a few passages have been examined, you are visited by the father and mother of one of your pupils. They demand that the Bible selections *not* be included in future lessons.

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CHAPTER 4

UNDERSTANDING AND TEACHING

ARITHMETIC

(HISTORY AND THEORY OF NUMBER)

When you have your teacher's certificate in hand and have accepted a teaching position in the elementary school, you will be on your own to a great extent. You will receive guidance and assistance from your principal, from fellow teachers, and from curriculum guides and manuals; but your success in teaching will be determined primarily by your knowledge of child growth and development, your understanding of curriculum, and your ability to relate educational theory to classroom practice.

In some teachers' colleges, students may have a course in the principles and teaching of arithmetic; in other teacher-preparation programs, an understanding of number concepts, principles to be taught, and recommended methods to be followed may be the aim of a general curriculum class. In this chapter, we will explore the following three questions:

1. As a future elementary school teacher, what do you need to understand about arithmetic in order to make it a vital and challenging study area for children?
2. What are significant milestones in the history of number?
3. What are the dominant theories of teaching arithmetic?

Your instructor, your first school principal, and the writers recognize some obstacles in taking you from where you are right now to where we hope you will be in that first classroom. Here they are:

1. In the first place, if you are like most people who hope to teach in the elementary school, you are somewhat afraid of, or uneasy about, mathematics.
2. If you are a typical college student majoring in elementary education, you may find it difficult to see any practical value in studying the history, and the psychological, sociological, and organizational

principles and theories of teaching arithmetic. If we might be so bold, we would guess that you might say to yourself: "Look, I'm going to teach second grade at Composite School next year. In fact, I've already signed a contract. I'm not a mathematics major, but I don't have to be a 'whiz' to teach numbers to seven-year-olds. I'm going to read the text, review the class lectures, and try for a 'B' in this class. College students don't have to take a course in arithmetic methods to teach children that two apples and three apples are five apples or that a yard is equal to three feet, do they?"

3. It is not easy for you to project yourself into that second-grade room as you read and study during this semester. Effective principles of teaching arithmetic are often, for the student, just "so many words" on the pages.

If we were discussing poetry, music, art, or athletics, we would probably have little difficulty getting and holding your attention. *But arithmetic is different.* It's difficult to excite you about arithmetic. It's not easy to get you willingly to do extra reading about it. It's very hard to teach so that you nail down for yourself significant principles in teaching number concepts.

What we've been saying in these few paragraphs is this: We recognize, in general, that elementary education majors are somewhat insecure in the area of arithmetic; college entrance tests show that they are not in the upper percentile in mathematics ability; in our experience in dealing with undergraduates, we find that they usually feel they don't have to be very learned in mathematics to teach arithmetic in the elementary grades; and there are personal, social, and educational interests more attractive to most prospective teachers than is the study of arithmetic.

WHAT YOU NEED TO UNDERSTAND ABOUT ARITHMETIC

Here are some understandings you will need if you are to make arithmetic a vital, challenging study for children.

THE HISTORY OF NUMBERS

You can utilize historical facts in the development of our number system to motivate a questioning attitude among boys and girls. Let's suppose you are teaching a fifth-grade class. Try out some of these questions to see whether the children's interest is not increased:

1. Where did we get the length of an inch? Who determined how long an inch is?
2. In our system of weights, why is a pound sixteen ounces?
3. Where do you suppose the quantity of a yard originated?

4. Where did we get the words *acre, foot, mile, area, total, sum, rod, ton, metric system*?
5. If you wear a size five shoe, does this mean five inches, five feet, five pounds, or five what? How can we find out?

These, and similar questions which will occur to the children themselves, have possibilities as excellent motivating vehicles. We have observed in many elementary-school classes that interest increases, answers (guesses at first) pop out from children about the room, hands go up, eyes sparkle, and brows begin to wrinkle when planning has been done to rouse children from the lethargy which grips too many arithmetic periods.

You will find it fun to study the following evolutionary steps in our number system and carry some of these ideas with you as you begin to teach.

SOME FACTS ABOUT THE HISTORY OF NUMBER

Thousands of years ago, early inhabitants on earth could distinguish items in groups: could ascertain that this pile of pebbles was "more than" that pile, or that one flock of birds was "smaller than" a second flock that flew overhead. But earliest man could not count as we understand the term. In trying to arrive at an answer for quantity—for "how many"—our earliest ancestors could match sticks or rocks with a similar number of animals they saw in the forest; or they could scratch a mark on a rock. In other words, by the process of tallying or matching they could arrive at a group quantitative answer.

But this was not counting.

It was, however, the forerunner of counting, which came gradually as some order or systematic method was learned and as ways were learned to express quantity. Here you might try an experiment by having your boys and girls express quantity *by not using objects*. What do you think they will do? If they are like the cave man (or like normal children), they will use their fingers—perhaps, even, their toes! In fact, our word *digit* (numerals 1-9) came from the Latin *digitus*, meaning finger. Here began, then, our system of tens.

HINDU-ARABIC SYMBOLS

As people needed to use larger numbers in trade and commerce, they generally utilized this base of ten. Early Egyptians had symbols for one, ten, one hundred (ten tens), and one thousand ($10 \times 10 \times 10$). Higher decades were represented by repeating these symbols. Base numbers other than ten were used. For example, our division of the hour into sixty minutes and the minute into sixty seconds was originated by the ancient astronomers of Babylonia.

Sanford has commented on the milestones in the development of Hindu-Arabic numerals:

There are three milestones in the development of Hindu-Arabic numerals. (1) It was about 300 B.C. that the ancestors of our numerals were used in the vicinity of the present Bombay in India. These numerals had symbols for the units, for multiples of 10, for multiples of 100, etc. Thus, to write the numbers from 1 through 999, you would need 27 different symbols. (2) It was about 600 A.D. that people were using a zero in these numerals making place value possible and making special symbols for numbers greater than 9 unnecessary. (3) The third milestone is the year 1585 when the first systematic account of decimal fractions was printed.

Prior to the time when zero appeared, Hindu numerals had the important characteristic that numbers from one to ten, multiples of ten, multiples of one hundred, etc. were not built up by repeating the symbols for one, ten, and one hundred, but were given distinct symbols of their own. This scheme had characterized other systems of numerals, the Hebrew ones for example.

The idea for a symbol for zero probably did not originate in India. In the case of Babylonian numerals of about 2000 B.C., the number 1,52 might mean $1 \times 60 + 52$ or $1 + 52/60$ or $1/60 + 1/60 \times 60$ according to the context. By 300 B.C., however, Babylonian records involving mathematics or astronomy made use of a symbol for zero. Thus the numerals for 11 followed by a zero would mean $11 \times 60 + 0$. Greek astronomers began using a symbol for zero also, probably borrowing the idea from the Babylonians, and when Hindu astronomers became acquainted with the work of these men, they incorporated the idea in their numerals. At this point, Hindu-Arabic numerals gained their great superiority over other systems for they coupled the idea of place value with a system that had distinct, separate symbols for the numbers 1-9 and for zero.¹

CHARACTERISTICS OF OUR NUMBER SYSTEM

1. ORDER OR POSITION

If we use the Hindu-Arabic numerals in an ordinal sense, they always maintain the same order—that is, 8 always comes after 7, 3 after 2, 6 after 5, and so on. Regardless of the size of the quantity, this order is always maintained. It is this positional relationship of number that provides us with the most significant idea of quantity.

2. BASE OF TEN

The numerals 1-9 comprise our *units* or *ones*. The number 10 is conceived as a single group and not usually thought of as made up of independent units. This number 10 implies the *original ten*. Thus our system becomes a decimal system as larger decades or numbers are expressed in tens or multiples of tens. Our number system is a system of tens because we conceive ten as the base. For example, in expressing the quantity 56, we use 5 tens and 6 ones.

¹ Vera Sanford, "Hindu-Arabic Numerals," *The Arithmetic Teacher*, Journal of the National Council of Teachers of Mathematics, Volume II, Number 5, December, 1955. (1201 Sixteenth Street, N.W., Washington, 6, D.C.). Pp. 156-57.

3. RELATIONSHIP BETWEEN NAME AND MEANING

Our number system has maintained the tens as closely associated with their meanings. For example, 2 tens have been named twin tens or twenty; 3 tens, three tens or thirty; 4 tens as forty, and so on. In 60, 70, 80, and 90, names of tens are exactly derived from the names of the ones. The order of the tens is equivalent to the order of ones.

4. PLACE VALUE

Place value means that the value of a digit depends upon its *position* in a number. For example, the eights in 888 are alike and taken as single entities are equal in value. However, the position of the middle 8 (in 888) determines that it is ten times the value of the 8 in the right-hand column (the units); and the 8 to the left (in the thousands column) is itself ten times the value of the middle 8 (in the hundreds column). Our system of place value used in conjunction with zero (the place holder) permits us to write any number by utilizing just ten symbols.

RECENT HISTORY

We have reviewed some of the broad developments and concepts in the history of our number system. These developments down through the years have provided teachers with fundamental tools and understandings for dealing with this subject. In recent years the learning of arithmetic has undergone careful scrutiny. Authorities² have pointed a critical finger at fragmentation of number processes, a common pattern of teaching as late as twenty years ago. It was believed that learning in the basic processes of addition, subtraction, multiplication, and division was helped by partitioning these processes into small bits. Thus teachers reasoned that the more complex number skills were learned by drilling upon one part of the skill before proceeding to another segment of the skill. Thorndike gave support to this process of teaching in his stimulus-response theory of learning. In fact, Morton supported this theory of teaching when he wrote as follows: "Teaching the fundamental facts of arithmetic is a habit-forming process. What we desire to do is to form bonds in the child's nervous system between stimuli and response."³

This belief resulted in practices in American schools which emphasized a great amount of drill and the presentation of a number program broken into small items or skills. Arithmetic instruction aimed then at teaching a multitude of relatively unrelated facts, and the measurement of the teacher's ability was determined by the degree of success of his pupils in rapid and accurate calculation.

Teachers in today's elementary school have a different set of arithmetic objectives based upon a newer kind of psychological reasoning. Habit psychology and decomposition of skills in the program have been

² Harry Grove Wheat, T. R. McConnell, Charlotte Junge, H. Van Eagen, *et al.*

³ Robert L. Morton, *Teaching Arithmetic in the Primary Grades* (Silver Burdett, 1927), p. 35.

replaced by the belief that children learn better when aspects of number are studied in interrelationship; when a "whole" process is presented for study with the expectation that as children deal with the process, more mature answers will gradually be learned which contribute to the goal of thinking quantitatively. Consequently, current elementary school arithmetic programs have these characteristics:

1. Teachers realize that visualization is basic to the process of thinking. Consequently, varied number experiences of a concrete nature and much use of objects and their symbolization are provided for children.
2. Instruction in arithmetic aims at helping children to draw generalizations of a quantitative nature.
3. Broader arithmetic concepts are initially presented. There is a decrease in the teaching of atomized number processes.
4. There is greater acceptance among elementary-school teachers that drill of itself does not help children think quantitatively.
5. The elementary-school arithmetic program includes a greater proportion of problem-solving which is closely related to identifiable interests of children.

USING HISTORY OF NUMBER IN CLASS

To teach arithmetic effectively, you must help children understand that our numerical system is a *system*. Make use of the history of number in teaching these facts. For example, in a lower-grade class help children express one group of tens or fingers. Suppose you ask pupils to express the number of children in a class of thirty by using the hands and fingers. If they are as intelligent as early man (and they will be), some will immediately grasp the idea that some method must be found to mark the first group of ten, the second group of ten, and so on. Similarly, increases in quantity to include 100 and 1000 can be learned by children in order to begin to understand place value. Practically all of our new elementary textbooks in arithmetic for pupils now re-count man's discovery of symbols in identifying number. The first symbols for number were generally unrelated and hence made computation unwieldy. For example, Roman numerals such as V, X, L, and D lacked relationship and interdependence.

Children will enjoy learning that our number 1 really originated from one scratch on the side of a rock or one mark in the sand; that 3 was once written in parallel lines, and that the present symbol is a brief form derived from this original; that our number system, discovered by the Hindus, was transported throughout Europe by the Arabs, so that we call it the Hindu-Arabic system. Other questions which you might use as motivation for learning about the history of number include:

1. What does zero mean?
2. How is zero represented in our history of numbers?

3. Why did the Church oppose the use of zero?
4. What does zero actually "do" in our number system?
5. What is an abacus?
6. How is the abacus related to the history of zero?
7. Why is it that, without zero, the Hindu-Arabic number system would be unthinkable? Why is the discovery of zero and the beginning of its utilization said to be one of the most intellectual discoveries in the history of man?

WHAT IS THE ORIGIN OF ARITHMETIC TERMS?

The history of number is filled with facts about terms and methods of measurement, of weight, of area, or volume, and the like. The children in your class will be quite interested in the following:

GIRTH:	The length of a string once around the waist.
CUBIT:	The distance from the elbow to the tip of the middle finger.
SPAN:	The distance on the outspread hand from the thumb to the little finger.
FATHOM:	With both hands outstretched, the fathom was the distance between the finger tips.
FOOT:	Naturally, the length of a man's foot!
STEP:	The length of a man's step.
PACE:	Equal to two steps.
INCH:	$\frac{1}{12}$ of a foot. In early Roman times, the inch (uncia) equaled $\frac{1}{12}$ of one foot. We still use it today. At one time in history the inch was the equivalent of the average width of the thumbs of three men. Edward II of England decided that the length of an inch should be equivalent to the width of three barleycorns taken from the middle of the ear.
YARD:	The distance around a man's waist; also decreed by one King in Europe to be the distance around <i>his</i> waist! At another period in history, the yard was the distance from the tip of the nose to the thumb with the right arm outstretched.
ROD:	"In Germany, in the sixteenth century, the length of the rod was found according to the following rule: Stand at the door of a Church on a Sunday, and bid 16 men to stop, tall ones and small ones, as they happen to pass out when the service is finished; then make them put their feet one behind the other and the length thus obtained shall be the right and lawful rood (rod) to measure and survey land with, and the sixteenth part of it shall be a right and lawful foot." ⁴

IMPORTANT LEARNING THEORIES

THE DRILL THEORY

If we could take you back to the little red schoolhouse which your great grandfather attended and if we could observe *his* arithmetic classes,

⁴ Harry Grove Wheat, *How to Teach Arithmetic* (Evanston, Ill.: Row, Peterson and Co., 1951), p. 380.

there would be some marked differences from what you might see in Composite Elementary School, U.S.A. Here are some things you would notice about the earlier arithmetic classes:

Much more attention given to practice or drill almost immediately after the introduction of a number concept.

More oral practice of number combinations.

Many problems for solution that you would find in our junior high school curriculum.

Practice in unusual (and unused in everyday situations) problems involving fractions.

Problems which made use of such terms as hogshead of molasses, barrel of wine, rod, ton of hay, firkins of butter, pairs of snuffers.

Problem explanations which would appear to be difficult for today's elementary pupil to follow:

HOW MANY TIMES is $\frac{3}{8}$ of $\frac{3}{4}$?

FIRST ANALYSIS: $\frac{3}{8}$ equals $\frac{3}{20}$, and $\frac{3}{4}$ equals $\frac{15}{20}$. $\frac{3}{20}$ is contained in $\frac{15}{20}$, $\frac{15}{8}$, or $1\frac{7}{8}$ times.

SECOND ANALYSIS: 1 is contained in $\frac{3}{4}$, $\frac{4}{3}$ times. If 1 is contained in $\frac{3}{4}$, $\frac{3}{4}$ times, $\frac{3}{8}$ is contained in $\frac{3}{4}$, 5 times $\frac{3}{4}$ times, which are $\frac{15}{4}$ times, and $\frac{3}{8}$ is contained in it $\frac{1}{2}$ of $\frac{15}{4}$ times, which is $\frac{15}{8}$, or $1\frac{7}{8}$ times.

PROBLEM: A fishing rod, the length of which was 14 feet, was broken into two pieces. The shorter piece was $\frac{3}{4}$ of the length of the longer. What was the length of each piece?

ANALYSIS: $\frac{3}{4}$ of the length of the longer piece, which is the length of the shorter, plus $\frac{1}{4}$ (the length of the longer), equals $\frac{7}{4}$ of the longer. If $\frac{7}{4}$ of the longer is 14 feet, $\frac{1}{4}$ is $\frac{1}{7}$ of 14 feet, which is 2 feet, and $\frac{3}{4}$ (which is the length of the longer) are 4 times 2 feet, or 8 feet. 14 minus 8 equals 6 feet, the length of the shorter piece.

PROBLEM: A person, being asked the time of day, said, the time past noon is $\frac{1}{4}$ of the time past midnight. What is the hour?

ANALYSIS: Since the time past noon is $\frac{1}{4}$ of the time past midnight, the time from midnight to noon, which is 12 hours, must be $\frac{3}{4}$ of the time past midnight.⁵

You would observe that the schoolmaster with the hickory stick stressed memorization of complicated rules, tables, and facts about number. The psychology of learning expressed in the Drill Theory of teaching arithmetic is fairly well summarized by this writer of the 1860's:

SUGGESTIONS TO TEACHERS: For the benefit of those whose experience in teaching arithmetic is limited, the following suggestions are made of such methods of teaching this important subject, as may prove best

⁵ John F. Stoddard, *The American Intellectual Arithmetic* (New York: Sheldon and Co., 1866), pp. 125, 127.

sued to fix the attention, strengthen the memory, develop the reasoning powers, and secure rapid and accurate computation.

1. Secure the careful attention of each member of the class, thereby assuring promptness from children.
2. Drill should occupy at least one-half of the time devoted to each recitation in arithmetic.
3. By careful attention to articulation, pronunciation, and construction, drill, and memorization, the teacher will be able to provide valuable exercises in address, elocution, grammar, rhetoric, and logic, and pupils will acquire a ready command of their thoughts
4. There should be no interruptions allowed in class. The only interruptions necessary should be those of the teacher as he admonishes pupils or makes important criticisms.
5. Class drills should be employed as a regular method of recitation. The important purpose of drill is to fix in the minds of the pupils important tabular facts.
6. Combinations of figures in the multiplication tables should be thoroughly learned before proceeding to problems or to any other study in the subject of arithmetic. The advantages of these methods are that they assure thorough knowledge of numbers, they teach children to write figures and signs properly; they give pleasant employment to the bodies; and they help secure good order in the classroom.⁶

One of the original theories of teaching arithmetic in the American elementary school may be summarized thus: *Arithmetic is best learned by memorization and drill*. You can also see from the foregoing quotation that claims were made for arithmetic study which appear absurd today.

SOME OBJECTIONS TO THE DRILL THEORY

The influence of the Drill Theory extended over many years and was encouraged by Thorndike and other writers through stimulus-response learning methods, and there are still teachers who depend too much on barren repetition and drill in teaching arithmetic.

Some objections to the old Drill Theory are:

1. Little or no attention was paid to the value of children's interest as a motivating factor in learning.
2. Too much stress was placed on competitive situations, to the detriment of the shy or retarded pupil.
3. An incorrect relationship was assumed between memorization and problem-solving. Those who strongly advocated the Drill Theory incorrectly assumed that the ability to repeat automatically a multiplication fact assured ability in problem solution.
4. There was no emphasis placed on the value of learning the relationship among mathematical processes. Addition and multiplication are

⁶ Stoddard, p. vi.



ARITHMETIC IS LEARNED BEST WHEN APPLICATION TO PROBLEM SOLVING IS CLOSELY RELATED TO EVERYDAY LIVING.

both ways of counting—one is a faster method. All four basic mathematical processes are closely interrelated. For example, the number 6 can be added 6 times with a sum of 36; by using 6 as a multiplier and multiplicand, we have a product of 36; 6 can be subtracted from 36, in groups of 6, 6 times; and with a dividend of 36 and a divisor of 6, we have a quotient of 6. Teachers who depended on the Drill Theory made too little effort to help children understand these relationships.

5. The deeply ingrained process whereby *drill preceded understanding*—in fact, preceded study of number in formal instruction—constituted the most glaring weakness of the Drill Theory from a psychological point of view.
6. The theory neglected wise utilization of concrete, meaningful materials of instruction in arithmetic.
7. Drill in itself is a monotonous, deadly kind of mental exercise—a process not at all conducive to thinking, creativity, or genuine learning.

THE SOCIAL NEEDS THEORY

It was not until the period of the early 1930's that a serious challenger appeared upon the elementary educational stage to "do battle" with the



LEARNING IS AIDED BY THE USE OF CONCRETE MEANINGFUL OBJECTS.

Drill Theory. This new adversary was known by many names (some not so complimentary!), but perhaps the most commonly used was "Theory of Social Need." This learning theory represented a revolt not only against memorization and drill but also against highly autocratic relationships between teacher and pupils. If one relates this theory to social change, he cannot fail to see some relationships to a time of great distress and difficulty in millions of American homes. The Great Depression was a time of social upheaval, unrest, and change.

Simply stated, the Social Needs Theory of teaching arithmetic was as follows: *Arithmetic is learned best by children when application to problem-solving is closely related to everyday living.* This theory, which was embraced by the Progressive Education Association, had significant results: Research was stimulated in many sections of the country in an effort to discover the social needs of children in everyday life. It was soon proved that many number facts and concepts then being taught in the elementary schools were seldom if ever used. Such highly unusual fractions as $1\frac{1}{43}$ and $11\frac{11}{349}$ (which were common in earlier textbooks) were of no practical use whatever. It was also proved through objective study that many number concepts could be learned more quickly and retained for a longer period of time if introduced and taught at a later age. Consequently, this period saw changes in the arithmetic textbooks for elementary-school pupils. Unnecessary concepts were omitted;

more practical and useful concepts were included; the use of drill as a learning technique was de-emphasized; and the teaching of many number concepts was deferred to later grades.

The Social Needs Theory also resulted in more incidental arithmetic teaching than had ever before taken place in our elementary schools. Teachers used mathematical problem situations in project and unit teaching more readily. There was a greater tendency to relate the learning in arithmetic to interest and to learnings in other school subjects. This era in elementary school arithmetic might appropriately be called the "bee-hive" period; for, in reality, teachers and pupils were busy as bees originating ways in which number was used, finding methods of applying number to the construction of forts, igloos, wigwams, store counters, post-office windows, and in figuring the cost of milk and bus tickets and lunches for educational trips.

It was a busy, interesting, changing, and worthwhile period for arithmetic.

SOME OBJECTIONS TO THE SOCIAL NEEDS THEORY

1. The Social Needs Theory, in its reliance on incidental and current activities as the substance of the arithmetic program, resulted in haphazard instruction and needless repetition of concepts and fundamental skills.
2. The theory failed to recognize that the number system *is a system*; that learning in this area must be systematic, one concept preceding a second, the second preceding a third, and so on; that sequence in learning arithmetic is a necessity and that children cannot be taught number concepts effectively except through a well-planned and sequentially developed program from kindergarten through the sixth grade.
3. It resulted in unnecessary duplication and repetition for the pupil as he progressed through the grades.
4. Insufficient attention was paid to teaching about number itself. We can illustrate that the value of a number depends on two things: the number itself and the place of the number.

6

66

666

.6

All of these sixes look alike. They are all 6's. But do they have similar value? Few children received instruction in the meaning of number position under the Social Needs Theory.

5. Children were given inferior instruction in learning about our system of tens in arithmetic.
6. There was little in the program to challenge the more talented student. It appears from a study of the literature of the 1930's that,

while individual differences were certainly recognized, the arithmetic program gave more lip service to the idea than guidance to the gifted student.

THE MEANING THEORY

The Meaning Theory of teaching arithmetic may be called an eclectic approach. A name just as appropriate might be the "compromise theory," for in this approach:

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1. There is a recognition that meaning and understanding must *precede* practice or drill.
 2. There is appropriate recognition of the fact that arithmetic plays a significant role in daily life and that it touches the everyday experiences of all people.
 3. Proper emphasis is placed on the relation among computational, quantitative, and social aspects of number.
 4. The advocates of the Meaning Theory do not do away with drill. They recognize its importance in helping children learn computation rapidly and accurately. Under the Meaning Theory, drill occupies a place *alongside*—not above nor below—other important objectives and principles in arithmetic learning.
 5. In this theory, there have been adopted the effective practices of the Drill Theory and the Social Needs Theory, and there has been an attempt to discard ineffective practices which resulted in a too close adherence to the other theories.

Practically all arithmetic textbooks for the elementary pupil today claim to be constructed in accordance with this theory. We strongly feel that any undergraduate in the teacher preparation program should become acquainted now with these basic textbooks from which you soon will be teaching. You will find the following principles emphasized in these texts:

1. Learning is directly related to positive motivation.
2. Learning is enhanced by recognizing the interest of the learner.
3. Learning is nurtured by utilization of a variety of such media as audio-visual aids, educational trips, resource visitors, class and individual projects which make use of number, measures of many kinds as quart and pint bottles, gallon tins, foot rulers, yard sticks, fraction trainers, electrical number boards, and number games.
4. Learning is best when there is consideration of individual differences among pupils.
5. Learning is aided by the use of concrete, meaningful objects.
6. Learning is more effective when the transition from concrete to abstract understanding of number symbol is geared to individual need and ability.

7. Learning in arithmetic must be sequential, planned, and systematic. In this respect there must be *both* horizontal and vertical integration in curricular and instructional practices in the school program. (Horizontal integration is the interrelatedness of all curricular areas in a *particular* grade; vertical integration means that there exists close relationship between subject matter from one grade to another.)
8. Learning is diagnosed better when teachers make use of readiness, diagnostic, and standardized achievement tests in the arithmetic program.
9. Learning in arithmetic is not complete unless instruction includes teaching about number itself, about our system of tens, and about place value; and unless the *prime objective is problem-solving*.
10. Teaching in arithmetic must take account of child growth and development; the growing ability of the child to understand number concepts is vital in shaping the course of study.
11. Teaching in arithmetic must have as its purpose helping boys and girls gain confidence in their ability to deal with quantitative situations successfully.
12. Learning arithmetic should be a satisfying process to the pupil.

Obviously, the Meaning Theory is being championed in elementary schools today. The Drill Theory and the Social Needs Theory have come and gone; will the Meaning Theory turn out to be the right one; will yet a new theory replace it?

THE NEED TO UNDERSTAND ELEMENTARY ARITHMETIC COMPUTATION

After working with elementary education majors and elementary teachers in several widely separated colleges and universities, the authors are convinced that practically all prospective elementary-school teachers need some brushing up on basic arithmetic fundamentals. Many students in colleges have not had recent contacts with simple problems involving common fractional parts, interest, decimal fractions, ratio and proportion, and area. This is not to say that they did not at one time know how to solve problems in these areas—it simply means that without adequate use, formulas have been forgotten. Since you may be teaching in one of the middle or upper elementary grades and since you will need to stimulate your gifted pupils, we think this suggestion on review will be of much value to you. All elementary school teachers, to be effective in guiding talented youngsters who may have an interest in mathematics, must stimulate these children to further achievement. This is part of your job in working with boys and girls.

THE NEED TO KNOW THE VOCABULARY OF ARITHMETIC

Test yourself on the following terms. If you are not certain of exact meanings, go to your college library, locate some of the references given

in the last section of this text, and find out meanings and usage for those for which you need help:

addend	formulas for finding	partition
area	the area of a circle,	per cent
bridging	a rectangle, a par-	place value
cancellation	allelogram, a tri-	product
cardinal	angle	quotient
compound and sim-	metric	remainder
ple interest	minuend	rounding numbers
counting away in	multiplicand	square root
subtraction	multiplier	sum
decomposition	numerator	trial quotient
denominator	ordinal	volume
divisor		

DIAGNOSING DIFFICULTIES

In order to help a pupil who is having difficulty with study problems, your first job is to find out *why* he is making mistakes. We suggest that you sit down with the child and patiently help him locate his errors. An analysis of diagnostic tests will give some information about pupil computational mistakes. These are an aid, but they are only the beginning. Continue by finding answers to such questions as these:

1. What *repetition* do you find in computational errors?
2. What basic problems in reading "crop out" as you listen to the pupil read the problem orally?
3. Does the error result because the pupil is making a mistake somewhere *in the process* of problem solution?
4. Does the pupil fail to grasp *what is asked* in the problem?
5. Does he fail to locate necessary information provided in the story problem?
6. Does he understand the vocabulary of special arithmetical terms in the story problem?
7. Does he try to use necessary steps *in improper order* in attempting to solve the written problem?
8. Does he fail to find *the hidden steps* in two-or-three step problems?

With answers to some or all of these questions at hand, you are in a better position to move in with positive directions and suggestions for improvement.

ARITHMETIC CONTENT NEXT

This chapter was designed to (1) help you understand more about elementary school arithmetic, (2) to identify for you the historic milestones in the history of number, and (3) to present the dominant theories of

teaching arithmetic. We are ready now to consider the grade-by-grade content of arithmetic in the curriculum of the elementary school.

SUMMARY

A teacher must understand well all subjects he will teach. In arithmetic, he should know the history of number, the characteristics of our number system, and the terms and vocabulary of arithmetic. He must understand elementary arithmetic computation.

The arithmetic teacher should know well the dominant theories of teaching arithmetic—the Drill Theory, the Social Needs Theory, and the Meaning Theory—and be acquainted with their strengths and weaknesses.

Since there will be some children who will have difficulty, the teacher needs also to develop skills and techniques in diagnosing problems and designing remedial and strengthening activities.

PROBLEMS AND DISCUSSION TOPICS

1. How can the history of number be used to increase pupils' interest in arithmetic?
2. Why is our number system called a "tens" system?
3. Explain this statement: "One of the milestones in the development of Hindu-Arabic numerals was the discovery of the use of zero."
4. Habit psychology and decomposition of skills have been replaced by certain basic principles of teaching arithmetic in today's elementary school. List and discuss these principles and give reasons why they now are foundation stones for the arithmetic program.
5. Compare in outline form the following theories of teaching arithmetic by completing your analysis in this fashion:

	DEFINITION	ADVANTAGES	DISADVANTAGES
The Drill Theory			
The Social Needs Theory			
The Meaning Theory			

6. You are teaching fifth grade next year in Composite School. During the year, you are to teach addition and subtraction of common fractions. Examine the basic learning principles on pages 41–42

and explain how each might be related to this job of teaching addition and subtraction of fractions.

7. Test yourself on the meaning of the arithmetic terms on pages 66 and 74.
8. How might a field trip to see a new home being built be justified as an arithmetic experience?

WHAT WOULD YOU DO?

It is Classroom Night at the P.T.A. Each teacher has invited the parents to sit in the classroom and have presented to them some aspects of the program. You have chosen to tell how you teach arithmetic. One of the fathers, perhaps a mathematics major in college, begins to needle you—to ask you questions about the *hows* and *whys* of your method. He catches you off guard. Though he is being unfair in his questioning, you feel obliged to try to answer him. After several attempts (and you are quite sure your answers weren't good enough), he continues to interrupt, trying to embarrass you further.

CHAPTER 5

UNDERSTANDING AND TEACHING

ARITHMETIC:

THE CONTENT OF ELEMENTARY-SCHOOL ARITHMETIC

NUMBER IN THE KINDERGARTEN

The five-year-old brings to school much more knowledge than the beginning teacher might suspect. Early studies by Woody, by MacLatchy, and by others showed that many children of this age can count to 100 by one's, to ten by two's, can solve easily simple addition problems, especially by the use of objects, and have some concepts of common fractions. Kindergarten children can count the number of boys and girls in the class, they have correct ideas about which groups are larger or smaller than other groups, and they can solve simple problems in subtraction. The average kindergarten pupil has, perhaps, a good idea of the number of days in a week and, with the advent of television, he knows more about telling time. If he doesn't, he misses his favorite cowboy TV program at 6:30 just as Mother calls dinner!

Another wonderful quality which this five-year-old brings to school is a questioning attitude. If you happen to know one of these swaggering, "gun-toting," little "Indians" full of horsepower and high octane fuel, you know exactly what we are talking about. From morning till night, he will follow you around and ask countless questions. He never seems to run out of "How much?," "When?," "How long?," "Why?," "How often?," "Is it less?," "Am I taller?," "When do we get there?," and the like. If we pause for a moment to analyze these questions, we will find that most of them arise out of search for quantitative answers.

The kindergartner, then, brings both knowledge of number and a desire to know more about number when we open our school doors to him.

KINDERGARTEN OBJECTIVES

What do we do with this excellent opportunity to help the five-year-old learn more about number this year and to enrich his interest in quantitative concepts?

We should answer the significant question "What is the kindergartner?" before plunging into the number program at this level.

1. The kindergarten is an orientation to school life.
2. The kindergarten is an environment where children learn to live more harmoniously with one another.
3. The kindergarten is a program where the interests of the five-year-old are enriched, broadened, and extended.
4. The kindergarten curriculum provides experiences where children are given added opportunity:
 - a. to learn to follow directions.
 - b. to be a little more sensitive to the feelings and desires of other boys and girls.
 - c. for listening.
 - d. for observing.
 - e. for increasing attention to care of person and care of personal belongings.
 - f. for practice in safety procedures.
 - g. for creativity.
 - h. for response to rhythm.
 - i. for beginning to recognize school regulations.
 - j. for more acceptable behavior in a group.
 - k. for a better understanding of the meaning of fairness.
 - l. for increasing attention to co-operation with responsibility to friends in a group.
 - m. for understanding better, more courteous conversation and behavior.

If you observe kindergarten programs intently enough and if you carefully analyze the written purposes of this program, you will discover that the above objectives are indeed sought by kindergarten teachers. The kindergarten goals, if they are reached, result in conforming the child to the prevailing mores. We have sometimes wondered: "What do we do to the child that makes him lose some of his inhibitions, his spontaneity, his individuality?" The answer to this question is fairly obvious, once the purposes of the kindergarten are examined. Adults ask the question with some nostalgia—but we suspect they would not have other goals substituted in the child's first year of school.

NUMBER EXPERIENCES IN THE KINDERGARTEN

What role does number play in the kindergarten? The further development of number concepts will not be found at this grade level in exacting, specific periods devoted to number. Rather, learning number is a *natural, informal* experience as teachers and children work co-operatively toward the many broader goals listed above.

Number concepts in the kindergarten are included in such experiences as these:

1. Matching for single objects.
2. Matching for groups of objects.

3. Comparing different objects in a group, number of children in a group.
4. Introducing pictures to stand for or symbolize objects.
5. Using finger plays which involve number.
6. Counting: concepts of "how many."
7. Counting money.
8. Understanding ordinals—first, second, third, and so on.
9. Understanding terms such as *over, under, top, bottom, smaller, larger, right, left, more than, less than, taller, shorter, longer, next, last, older, younger, faster, slower, up, down.*
10. Understanding time: When do we have our recess period? When do we have our rest time? When do we go home? Here the objective is to help the five-year-old begin to associate the occurrence of an event with time.
11. Understanding the calendar: Learning the days of the week through discussions, stories, poems, and the like; marking days of the week on the calendar; celebrating birthdays and giving attention to such special days as Christmas, Halloween, Easter, Thanksgiving, and the last day of school.
12. Understanding the seasons through discussions of fall, winter, spring, and summer and activities associated with each. Listening to stories of seasonal holidays and special events. Learning songs about these seasonal happenings.

The skillful kindergarten teacher does not include these number experiences solely in a casual way. She plans for them. She knows which concepts ought to be developed. She maintains a *systematic* program of concept development in number. She includes number experiences on an individual pupil basis. She keeps records, so that she knows which pupils are ready for more difficult understandings and which need additional time for easier arithmetic concepts. She is aware of the importance of pupil interest in number at this age. Finally, the kindergarten teacher takes advantage of the activity program so that number becomes a useful tool in the daily life of the five-year-old.

NUMBER IN THE PRIMARY GRADES

In the first and second grades, the number program in Composite School, U.S.A., will vary. You may find yourself, as a beginning teacher, in a school which does not have a formal curriculum in arithmetic; or you may start teaching in a school district which provides workbooks for first graders and even a textbook for second graders.

Analyses of many workbook-based programs and the incidental type of curriculum in arithmetic reveal that *common* concepts for these early grades are sought. This does not mean that the purposes are ex-

actly the same. It does mean, in most cases, that in these two grades you will be expected to help children improve in understanding number and extending interests in quantitative relationships through many of the following general activities:

1. Review and readiness in number sequence.
2. Reading numbers.
3. Review of elementary understanding of fractional parts.
4. Using number in solving simple problems
5. Review and teaching a few precision instruments (clock, calendar, foot ruler, scales).
6. Review and teaching elementary units of measure (penny, nickel, dime, quarter, half-dollar, number of days in a week, hours in a day).

Teachers in the first and second grades should carefully review the child's understanding of numbers and choose activities and experiences which will help him solidify his knowledge before going ahead to more difficult problems. The teacher gains most of the information about the level of understanding of individual pupils by means of class discussions, by observing closely pupil answers to questions incidental to arithmetic, and by using arithmetic readiness tests. It is generally not difficult for the teacher to determine the child's readiness level; once it is discovered, however, very careful and constructive planning on the part of the teacher is needed.

Assurance of a readiness level is perhaps more complex than the determination of the degree of readiness. Assurance first implies that knowledge of number sequence is extant—from known to unknown, from understanding to not understanding, from easy to difficult. Hence, a series of number experiences must be provided at a particular functional level designed to increase understanding of number. This kind of provision is also necessary for readiness activities in later stages of learning.

NUMBER CONTENT IN GRADES ONE AND TWO

In the first grade, we emphasize again that great variations exist from one program of number experiences to another; however, a recent careful analysis of thirteen programs contained in first-grade workbooks revealed these fairly common areas of instruction.¹

¹ Calhoun C. Collier, "Arithmetic Content at Various Grade Levels," unpublished study. Michigan State University, East Lansing, Mich., 1958, page 3. The following workbooks were analyzed: *Happy Time With Numbers—First Grade*, Allyn and Bacon; *Jolly Numbers—Beginner's Course*, Ginn and Co.; *Understanding Arithmetic*, Laidlaw Brothers; *Number Practice in Child Life—Grade One*, Lyons and Carnahan; *Growing Up With Numbers—Book One*, McCormick-Mathers Publishing Co.; *Arithmetic for Today—Workbook One*, Charles E. Merrill Co.; *Row-Peterson Arithmetic Primer*, Row, Peterson and Co.; *Numbers in Action*, Scott, Foresman and

1. Comparison of quantities—numbers and sizes.
2. Enumeration by ones.
3. Kinesthetic perception of numerals.
4. Knowledge of the place of number in a series.
5. Measurement—dozen, halves.
6. Concepts of quantity.
7. Concepts of money—penny, nickel.
8. Reading and number association.
9. Simple computation of addition—horizontal form.
10. Use of ordinals.
11. Following directions.
12. Understanding plus and minus signs.

In the second grade, the same study found these number concepts to be fairly common quantitative experiences:

1. Addition of sums through 10.
2. Subtraction of minuends through 10.
3. Subtraction of two-place numbers.
4. Subtraction in "story" problems.
5. Counting by ones, twos, fives.
6. Writing by ones, twos.
7. Making comparisons of size.
8. Understanding money—penny, nickel, dime.
9. Understanding teen numbers and twenty.
10. Measurement—inch, foot, dozen, quart, time to nearest hour.
11. Fractions— $\frac{1}{2}$.
12. Understanding arithmetic terms: *add, subtract, pair, column, equal group*.²

The following items probably should be included in the second grade program, since most of the basic materials examined contained them:

SUBTRACTION: Minuends through eighteen; story problems.

COUNTING: By ones, twos, threes, fives, and tens.

WRITING: Numbers to twenty.

COMPARISONS: Terms of relative size, quantity, position, and location.

MONEY: Meaningful experiences with pennies, nickels, dimes.

Co.; *Making Sure of Arithmetic, Book One*, Silver Burdett Co.; *First Steps in Numbers—First Grade*, Southern Publishing Co.; *Working With Numbers—Book One*, Steck Publishing Co.; *Let's Count*, World Book Co.

² Collier, p. 6. The following second grade basic materials were examined: *Jolly Numbers*, Ginn and Co.; *Understanding Arithmetic*, Laidlaw Brothers; *The World of Numbers*, The Macmillan Co.; *Growing Up With Numbers*, McCormick-Mathers Publishing Co.; *Row-Peterson Arithmetic*, Row, Peterson and Co.; *The Playground of Numberland*, The Southern Publishing Co.; *Number Magic*, Webster Publishing Co.; *Growth in Arithmetic—Number Book 2*, World Book Co.

TEEN NUMBERS AND TWENTY: Understanding and practice.

ZERO: Function.

MEASUREMENT: Length, weight, liquid measure, dozen, and time.

FRACTIONS: One-half.

^cTERMS: Add, subtract, equal, column, pair.³

NUMBER IN THE MIDDLE GRADES

TEACHING ARITHMETIC IN THE THIRD GRADE

If your first teaching position is in one of the middle grades—grade three, for example—you might well proceed in this manner:

1. Find out what the third graders know about arithmetic.
2. Isolate and study their conceptual and computational difficulties.
3. Obtain a second-grade and a fourth-grade textbook and borrow curricular guides from the second- and fourth-grade teachers. You can find a good use for them as you work with your third graders. Make use of materials on both successive and preceding grade levels in guiding your pupils to improved understanding of number concepts.
4. Examine available records on the achievement of your pupils. Talk with teachers who have had your pupils previously.

These steps should give you the information you will need to let you begin your teaching right where you ought to begin it—where each child is. Above all else, remember this point: One of the serious errors of the beginning teacher is the *common assignment*—a situation in which all the pupils consistently follow the same daily lesson. Don't try to make all youngsters jump the same hurdle, no matter how long their legs are. Don't forget that individual differences are just as apparent and just as real in arithmetic as they are in reading. So, begin your teaching on the right foot by first *reviewing* previous work done by your pupils.

A quick glance at previous pages in this chapter summarizing significant concepts for the primary grades will give you help in determining which objectives have been sought. Don't rush this review period! Take plenty of time at the beginning of school to review the following topics: *grouping and counting in tens; study of the teen numbers; the importance and use of zero in our number system; adding and subtracting tens in columns; and extension of practice in higher decades.*

After group and individual review, most third-grade textbooks and resource guides include the following understandings:

1. Adding higher decades, first without carrying like $12 + 3$, and then carrying like $12 + 9$.
2. Explanation and study of the relationships between simple addi-

³ Collier, p. 8.

tion facts and those in the higher decades. For example: "2 and 3 are 5; 12 and 3 are how many?"

3. Column addition with higher decades.
4. Study of the relationship between higher decade column addition and how one carries in simple multiplication problems.
5. Simple subtraction.
6. Subtraction in higher decades without borrowing.
7. Subtraction in higher decades with borrowing.
8. Adding and subtracting tens.
9. Addition and subtraction of ones and tens.
10. Study of hundreds.
11. One-, two-, and three-place multiplication.
12. Partition or division of groups into smaller groups.

SUMMARY OF IMPORTANT ARITHMETIC CONCEPTS FOR THIRD GRADE

One of the important facts to be noted about arithmetic in the third grade is this: *The four fundamental computational processes of addition, subtraction, multiplication, and division of whole numbers are taught at this level in most elementary schools.* Perhaps a better statement would be that addition and subtraction of whole numbers are reviewed carefully, and instruction in multiplication and division of whole numbers is started. If you work with these eight-year-olds, you are expected to strengthen their understanding of the first two processes and to start them on their way in the latter two. The arithmetic content of grade three may be summarized as follows:

I. REVIEW

Counting; place value of ones and tens; months of the year; days of the week; use of money; simple fractions ($\frac{1}{2}$ and $\frac{1}{4}$) and measures; number facts in addition to 18; addition of one-place numbers.

II. TEACH:

A. ADDITION

Addition of two- and three-place numbers.
Column addition.
Zero in addition.
Carrying in addition.

C. MULTIPLICATION

Ones multiplied by ones.
Ones multiplied by tens.
Hundreds multiplied by ones.
Zero in multiplication.
Carrying in multiplication.

B. SUBTRACTION

Relationship to "taking away."
Subtraction of one-place numbers.
Subtraction of tens.
Borrowing in subtraction.
Zero in subtraction.

D. DIVISION

Dividing a group into smaller, equal groups.
Dividing a number by itself.
Division with quotient of ones and tens.
Division and place of zero.

TEACHING ARITHMETIC IN THE FOURTH GRADE

A recent study of six of the most widely used textbooks⁴ listed the following *new* concepts for *the fourth grade*:

- Multiplication with carrying.
- Division facts with remainders.
- Zero in the quotient in division.
- Finding averages.

Wheat,⁵ in describing the work of the fourth grade, says that we should help pupils to extend understandings to thousands and beyond, to teach them to use multiples and powers of ten, and give them training in measurement and calculation of dollars and cents.

Many authors writing of the elementary-school curriculum do not present descriptive arithmetic materials on a grade-level basis. Consequently, we can only surmise that they, too, are in agreement with other authorities in elementary-school arithmetic that fourth grade is practically an extension of previous introductions to number.

Klausmeyer, Dresden, Davis, and Wittich⁶ indicate that checking column addition by adding up is a process to be included in the fourth grade. Cole⁷ agrees that this process should be taught at this level.

To recapitulate—if you plan to teach in the fourth grade (or any grade, for that matter), your first job is to understand what has been introduced to these children the previous year. The next two responsibilities follow naturally: to guide pupils in order to strengthen mathematical concepts already introduced; and to teach as new understandings those concepts not yet taught.

Further examination of the arithmetic program in the fourth grade shows that you will be drawing heavily on these activities, too:

1. Providing many experiences where children make use of number in solving problems.
2. Helping children extend their knowledge of common fractions in everyday use.
3. Extending possibilities for using and understanding linear and liquid measures, Roman numerals, and measures of weight.

NUMBER IN THE UPPER GRADES

The arithmetic program in the upper grades draws heavily on the time of the teacher for *re-teaching* many fundamental number facts. In addi-

⁴ Collier, p. 16.

⁵ Wheat, p. 196.

⁶ Herbert J. Klausmeyer, Katherine Dresden, Helen C. Davis, and Walter Arno Wittich, *Teaching in the Elementary School* (New York: Harper and Brothers, 1956).

⁷ Luella Cole, *Teaching in the Elementary School* (New York: Farrar and Rinehart, 1945).

tion, a great many new concepts are introduced and taught in grades five and six. The new significant mathematical understandings which upper-grade teachers must teach are these:

1. Understanding, reading, and utilizing larger numbers.
2. The teaching of division.
3. Extending understanding of multiplication through problems involving larger numbers as multipliers and multiplicands.
4. The teaching of four basic processes with (1) common fractions and (2) decimal fractions.

Of course, a simple statement of these four topics might cause one to assume improperly that there isn't much to do in arithmetic in grades five and six. Once more, we refer you to the list of review and teaching jobs ahead of you in these grades

FIFTH GRADE

REVIEW

1. Reading and understanding one-place to six-place numbers.
2. Re-teaching ones' place, tens' place, hundreds' place, and thousands' place.
3. Ordinal numbers.
4. Roman numerals.
5. Grade three and four addition facts.
6. Bridging in addition of whole numbers.
7. Basic subtraction facts requiring borrowing
8. The 64 basic multiplication facts from the 2s through the 9s.

TEACH

1. Using and understanding ten-thousands' and hundred-thousands' place.
2. Reading and understanding large numbers through millions.
3. Rounding numbers.
4. Addition of whole numbers by columns which include tens, hundreds, thousands, and ten thousands in irregular order.
5. Elimination of crutches in carrying and borrowing in subtraction and addition.
6. Such terms as *divisor*, *dividend*, *quotient*, *multiplier*, *multiplicand*, *product*, *numerator*, *denominator*.
7. The steps in division:
Divide
Multiply
Compare
Subtract
Compare
Bring down
8. Two- and three-step multipliers and multiplicands.

9. The basic division facts using 2 through 9 as divisors.
10. Common fraction concepts of $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$.
9. Use of zero in multiplicands.
10. Using two-figure divisors in the division of whole numbers and division problems with quotients of two numbers.
11. Relationship of long division to short division.
12. Understanding fractions of $\frac{1}{6}$ and $\frac{1}{8}$.
13. Addition and subtraction of *like* fractions as:
 $\frac{1}{3} + \frac{1}{3}$; $\frac{1}{2} + \frac{1}{2}$; $\frac{1}{4} + \frac{1}{4}$
 $\frac{4}{8} - \frac{2}{8}$; $\frac{3}{8} - \frac{2}{8}$; $\frac{3}{4} - \frac{1}{4}$
14. Reducing simple common fractions.
15. Addition and subtraction of *unlike* common fractions as:
 $\frac{1}{4} + \frac{1}{2}$
 $\frac{1}{6} + \frac{1}{3}$
 $\frac{1}{4} + \frac{1}{8}$
 $\frac{1}{2} - \frac{1}{4}$
 $\frac{5}{6} - \frac{1}{3}$
 $\frac{7}{8} - \frac{3}{4}$

SIXTH GRADE

REVIEW

1. Reading, understanding, and using larger numbers in problem solution. This extends to billions before the end of the sixth grade.
2. The tens system.
3. Rounding of numbers in long division.
4. Borrowing in subtraction of whole numbers.
5. Carrying in addition of whole numbers.
6. Multiplication problems having two and three figure multipliers and multiplicands.
7. Zero in dividend.
8. Problems in short division.

TEACH

1. Four-, five-, and six-number multipliers and multiplicands.
2. Provide extensive practice in rounding off divisors.
3. Meaning of common denominator.
4. Relationship between common and *least* common denominators.
5. Determining least common denominator.
6. Borrowing in subtraction problems with mixed numbers.
7. "Multiplication of fractions.
8. Division of fractions.

9. Addition and subtraction of common fractions.
10. Reducing fractions.
9. Understanding the relationship between a common fraction and a decimal fraction.
10. Understanding the systematic relationship between the tens system and the decimal fraction.
11. Adding, subtracting, multiplying, and dividing decimals.

And this doesn't tell the whole story of what arithmetic is taught in the upper grades. If you will turn back to the discussion of the Meaning Theory, you will find that we gave as the principal reason for including mathematics in the elementary-school curriculum the fact that it is desirable to provide children effective knowledge and means for solving problems. Children in these two grades are able to use acquired concepts and facts in solving many kinds of problems involving number. Some of the topics of these problems are:

- Adventure and travel.
- Recreation and games of many kinds.
- Track and field events.
- Temperature in Alaska and the South Sea Islands.
- Recipes and good things to eat.
- Altitude and mountain climbing.
- Halloween parties and the cost of refreshments.
- Odometers, speedometers, turning wheels, distance, and speed.
- Building a model racer.
- Measuring weight and height.
- Airplane flights and railway schedules.
- Baseball and batting averages.
- Working, earning and saving money.
- All kinds of graphs and tables.
- Science and weather reports.

It's fun for the teacher, too, to go with these fifth- and sixth-grade boys and girls on exciting trips, excursions, and activities and to share with them the satisfactions of finding answers to countless everyday problems.

FROM THEORY TO PRACTICE

The authors will attempt to relate some of the theories and principles discussed in the first part of this and succeeding chapters directly to

some specific classroom application, practice, or example, in the last part of the chapter. For you may be asking yourself at this juncture, "How can I apply the theories and principles discussed here to my day-by-day teaching? How, also, will I find the *time* and the *energy* to prepare for an enriched (or even adequate) arithmetic experience, for example, let alone for six or eight other subjects and activities?"

Bridges from theory to practice will be built for you in each chapter in order that you may see more clearly how theory can be applied in the classroom. These bridges are built for another purpose; to help you build your own bridges from theory and principle into your daily classroom practices and activities.

FROM THEORY TO PRACTICE IN ARITHMETIC

In arithmetic, we turn first to three of the principles relating to each child's peculiar and particular needs:

1. Learning is enhanced by recognizing the interest of the learner.
2. Learning is best when there is consideration of individual differences among children.
3. Learning in arithmetic should be a satisfying process for the pupil.

Nice statements, you say; easy to agree with. "But," you ask, "can teachers *really* do much to individualize the teaching of arithmetic, capitalize on pupils' interests, and assure pupil satisfaction and success in learning arithmetic?" Yes, teachers *really can* do much in this direction.

As a start, here are some ways to avoid the situation where *every child in the room* is on page 176 of the arithmetic book, all working (or attempting to work) those twenty multiplication problems with multipliers of seven—in complete disregard of individual needs or stages of arithmetical progress and understanding of the pupils.

Consider how unsound this practice is, as we adapt it to another situation. A private piano teacher starts 30 eight-year-old pupils on the piano at the same time. Her instruction is given in total-group, in small-group, and in individual situations (the way arithmetic should be taught). At any point—November 1 or March 15, say—were we to examine each child on his musical progress, his ability at the piano, note-reading skills, and general knowledge of music, would we be likely to find *every pupil* on "page 176"? Surely not!

Some of the children would be on "page 276," having progressed at their own rate and according to their capabilities. Others, perhaps, would be only on "page 26," needing to (and entitled to) go more slowly, carefully, and deliberately. Only a few would be on "page 176" at approximately the same time. Perhaps *none* would be there.

But in arithmetic, it was long the general practice—and still is, in many schools—to keep children all at the same place at all times. If we are to avoid this, must we have thirty separate arithmetic classes, with

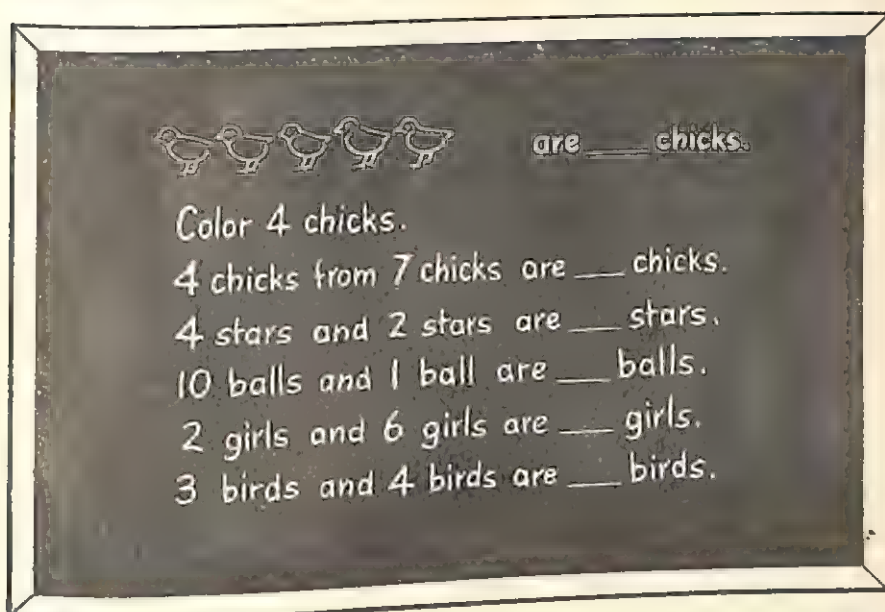
children at thirty stages of development? That, obviously, would be impractical.

A TEACHER PROVIDES FOR INDIVIDUAL DIFFERENCES

Miss Schmidt sensed the need for further individualizing her arithmetic teaching of a second-grade group and provided for it in this way:

On the chalkboard one particular morning was the lesson for the day. The teacher introduced it properly, as she had been taught in college. Then she "invited" the children to begin working. At this moment, she heard a little boy say to himself, almost inaudibly, "Not again!" Had this boy verbalized his attitude, we imagine he might have said, "Good land! Why do we always have to work problems we already know how to work?"

Let us now look at the assignment as it appeared on the chalkboard:



During the following period, the teacher observed each pupil, testing whether the children could do more difficult and challenging problems which she made up for them as she went from one to another. They could! Let's visit some of these children at their desks and discover the kinds of problems they could and did solve:

		DEBBIE		
9	10	8	22	16
$\begin{array}{r} 19 \\ +9 \\ \hline 18 \end{array}$	$\begin{array}{r} 12 \\ +12 \\ \hline 22 \end{array}$	$\begin{array}{r} 8 \\ -4 \\ \hline 4 \end{array}$	$\begin{array}{r} 22 \\ +23 \\ \hline 45 \end{array}$	$\begin{array}{r} 16 \\ +13 \\ \hline 29 \end{array}$
		BILLY		
21	14	18	20	8
$\begin{array}{r} 21 \\ +33 \\ \hline 54 \end{array}$	$\begin{array}{r} 14 \\ -4 \\ \hline 10 \end{array}$	$\begin{array}{r} 18 \\ -3 \\ \hline 15 \end{array}$	$\begin{array}{r} 20 \\ -4 \\ \hline 16 \end{array}$	$\begin{array}{r} 8 \\ +8 \\ \hline 16 \end{array}$

LYNN

$$\begin{array}{r} 9 \\ -9 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 13 \\ +4 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 8 \\ -7 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 10 \\ +12 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 22 \\ +23 \\ \hline 45 \end{array}$$

DAVID

$$\begin{array}{r} 12 \\ -4 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 10 \\ +7 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 10 \\ +10 \\ \hline 20 \end{array}$$

$$\begin{array}{r} 20 \\ +20 \\ \hline 40 \end{array}$$

("This is almost half a hundred!")

BOBBY

$$\begin{array}{r} 32 \\ +32 \\ \hline 64 \end{array}$$

$$\begin{array}{r} 20 \\ -19 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 23 \\ +13 \\ \hline 36 \end{array}$$

$$\begin{array}{r} 38 \\ -12 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 84 \\ +23 \\ \hline 107 \end{array}$$

Note this one:

$$\begin{array}{r} 23 \\ +25 \\ \hline \end{array}$$

"Oh, I know that one already. It's easy. It's 48. 20 and 20 make 40 and 5 and 3 are 8 . . . 48! (A far cry from taking 4 chicks from 7 chicks!)"

The following conversations ensued between the teacher and two of the pupils:

WITH HELEN:

"What comes after 299?"

"Three hundred!"

"Now I'll stump you! What comes after 999?"

"Ten hundred!"

"Do you know *another* name for it?"

"Sure, one thousand!"

WITH SUE:

"I know what sixty from one hundred is."

"What is it?"

"Forty. You know how I got it?"

"No. Please tell me."

"That's easy. Fifty from one hundred is fifty. Take away ten more and that's forty!"

And so it went. Not only could these children handle this kind of arithmetic mechanically, but they *understood* it. Some examples of testing for this understanding:

"How many are thirty-six?"

"A little more than our room (than pupils in the room)."

"What kinds of things would we have one hundred of?"

"Marbles!"

"Children in this school!"

"Stones!"

Following this experience, the teacher rethought and replanned her arithmetic program. The class enjoyed a more meaningful and challenging program, for some children quickly raced through the last half of second-grade arithmetic and were immediately challenged with more difficult problems in a third-grade book. One pupil (the one who had his own method of subtracting sixty from one hundred) worked alone in a third-grade book. Only a few needed to continue counting chicks.

The teacher was surprised, too, to find that she did have the time to meet children's individual needs more readily and satisfactorily. She discovered that she did not need to have "recitation" periods of "arithmetic class" every day—that is, a total class "assignment—recitation—checking" routine. On many days, the arithmetic time was used this way: each child worked entirely alone, and the teacher spent her time visiting individual pupils, checking their work, and helping them with trouble spots. She found that some concepts needed to be introduced or reviewed in a total class situation.

The slower learners were greatly relieved, because they were no longer being pitted against and unfairly matched with the faster learners. They addressed themselves more enthusiastically and successfully to their work. The interest of those who learned easily and were more gifted rose, because such children were not held to the "average" pace of the total group.

In this different program, the teacher provided for several assignment possibilities on the chalkboard, in the book, or in duplicated material. With the teacher's help, children were allowed to choose from these different assignments. Don't believe those who say children are lazy and will always choose the easy way. Not in arithmetic, certainly!

GROUPING FOR INDIVIDUALIZED INSTRUCTION

A fourth grade teacher unshackled her all-together-in-the-same-place arithmetic teaching in this way:

In an arbitrary manner, she created four arithmetic groups. The reason for four groups? To make it easier for the children to progress at their own rates. She might have had three groups—or five, or ten. Based on her records of the progress of each pupil, she placed each child in the group best paced for him. Wisely, she did not freeze pupils in any group, inviting them to join any other group of their choice. At first, groups were very fluid. "We must test this new-given freedom!" they thought. But children in academic pursuit, like water, seek their own levels. Soon pupils with similar abilities, difficulties, and stages of

advancement were working together. Occasionally there was a more permanent transfer from one group to another, in both directions, with the guidance of the teacher.

The teacher noticed a marked improvement in pupil attitude toward arithmetic. Children were more enthusiastic, more comfortable. All were being successful at each level. The principle that learning in arithmetic should be a satisfying process to the pupil was surely being applied here!

In these two examples, and in a third one to follow, the aim was not to find out how rapidly a child or group of children could complete the arithmetic textbook; nor, in the case of the gifted, to see how rapidly a child or group could complete one grade after another. In organizing to realize the theories and principles discussed here, much more happens. For one thing, the teacher brings more completely and vitally into play the theory that arithmetic should be useful in daily life situations.

Do you see, then, that in arithmetic, we cannot defend keeping an entire classroom of children exactly together, reaching page 176 intact? Even when a teacher divides the class into only two groups, she is heading in the right direction.

Perhaps if we examine this principle graphically, we will be able to see more clearly the need for individualization of teaching in arithmetic:

Below Fourth	FOURTH GRADE	Beyond Fourth
<p>A</p> <p>A group or individual, progressing slowly. Has not safely and adequately acquired knowledge and skills necessary for "fourth-grade" work. Not ready for more difficult concepts. Should not be forced to go faster than they are able.</p>		
<p>B</p> <p>An average group or individual, going along quite well with fourth grade concepts and requirements. Should be expected to complete satisfactorily the work designed for this grade, by the end of the year. "Fourth-grade arithmetic" actually fits only this group of children.</p>		
<p>C</p> <p>A group or individual permitted to move ahead, skilled in all fourth-grade concepts and requirements, using skills in enriched and challenging experiences; acquiring more advanced skills and understandings. Has broken the "barrier" of grade.</p>		

Would it not then be educationally unsound to hold this entire class together at all times through the school year? Isn't it most unlikely that



IN THE SCHOOL STORE, ARITHMETIC COMES TO LIFE.

any group of children, any class, would be so equal in abilities and so perfectly matched that they should or could be kept together?

In the third example, showing how theory can be woven into practice in the teaching of arithmetic, we will let a sixth-grade teacher speak to you in his own words:

As a teacher works with his class, he becomes aware of the more subtle abilities and difficulties of each child in arithmetic.

Turn to last year's achievement test scores and find out the same thing at a glance, you say? No. Last year's tests will only tell you how well the pupils scored on last year's tests. Only by daily observation of each child, along with continuous measures of evaluation, can we really know the true story. We gradually discover that Debby and Carol and Jim do above average work but consistently put forth extra effort. On the other hand, Russ and John get good marks with very little effort. Sally and Jeff may be "whizzes" at working problems in multiplication and long division, but they really struggle with story problems. Sam found that two-place divisors were a snap but thinks decimals were invented merely to confound him. And so it goes.

What to do? Like a musician, you play it by ear. The class is your instrument and to bring out the best in it, you have to be in tune with it. George understands the processes but is a slow, deliberate worker. We work for speed, but we do not frustrate him by pitting him against Russ



CHILDREN MUST SEE A NEED FOR ARITHMETIC AND USE IT IN PRACTICAL SITUATIONS.

and John. We don't say, for example, "Everybody will do the forty problems on page 106. You have thirty minutes. Go!" Rather, to George we say, "Do as many as you can in the thirty minutes." We record his accomplishments independently of the others. We compare his work only with his prior results. All of this is completely comprehensible to the sixth grader. He knows he should work for speed, but he also recognizes that he is competent in the process involved if he successfully solves most of the work he attempts. It would be sad, indeed, if George had only a stack of papers bearing the teacher's comments "Poor" or "F" to show for his efforts in his arithmetic.

Russ and John are breezing through sixth-grade arithmetic as though they had written the book. They complete the assignments in a fraction of the time needed by others. Sometimes Russ will spend the rest of the time figuring out new ways to get the same answers. John is given a *seventh-grade* arithmetic book by the teacher.

"Look what Mr. Darvill gave me!" Russ, having observed this, is all ears. Together, they look over this more difficult material, and soon come to the teacher with: "Will you please help us with this problem?" "Are you fellows willing to really work in this book?" "You bet!"

We explain to the two boys that arithmetic is a systematic subject; that processes build one upon another. We get started.

So Russ and John, with their teacher, work out a plan. We carefully choose twelve assignments in the remaining section of the *sixth-grade* text—assignments which will adequately test the areas presented. If we can “polish off” these satisfactorily, we will begin the seventh-grade work. As the three of us examine the new text, Russ remarks, “Let’s see how many pages are sixth-grade review. If this book is like all of our others, the first part of one grade is like the last part of the one before it.”

We find this to be true—that the first 125 pages of the new book are review. All right, then, pages 120–125 constitute a comprehensive summary of all processes to date. We begin here. If we are successful in this part, we will go on to the more difficult chapters.

Russ and John notice quickly the heavy type, page titles, and key examples—the real meat of the chapter. After skimming the text they attempt the summary tests at the end of each chapter. If successful, they go on to the next. When difficulty is encountered, they go back and dig, they help each other, but finally they need to come to their teacher. Occasionally, the teacher is unsure. After all, we are used to decimals, percentages, and the four fundamental processes, but, out of the blue, “How do you find the length of one side of a rectangularly inscribed hexagon?”

The best way to refresh your memory is to sit down with the boys and study the chapter together. The talented pupil would much rather have his teacher admit that he is not omniscient, and then go on to make an honest effort to help solve the problem together. Too often in such instances children have been served the old bromide: “Go back to your seat and try to work it out for yourselves. It’s better for you that way.” Or, “See me tomorrow about it.” (The pupils know full well that you are stalling for time to contact Mr. Jones, the mathematics major.)⁸

THEORIES OF READINESS APPLY ALSO TO ARITHMETIC

You may have studied and considered the matter of reading readiness, especially if your area of interest is the primary grades. Readiness for arithmetic, not only for the beginning of the study of number, but for each new process and stage of arithmetic development, is equally important. The calendar or course of study schedule cannot be the sole guide if arithmetical readiness is to be honored. For example, one school’s course of study contains this statement:

In our system, we teach subtraction of thousands in the last half of the third grade.

Are all children going to be ready for this “in the last half of third grade”? Might not some children be ready to subtract thousands earlier? Won’t others need more time, perhaps till the beginning of *fourth grade*? Will all of our piano teacher’s pupils be ready for a Chopin Nocturne “at the beginning of the last half of third grade”? A good diagnostic or achievement test given at the beginning of the last half of third grade,

⁸ Mr. Jack Darvill, sixth-grade teacher, Monteith School, Grosse Pointe, Mich.

as well as teacher judgment and assessment of progress, would surely be invaluable in determining each child's readiness for subtracting thousands, or for the introduction of any other new concepts in arithmetic. In addition, most arithmetic textbooks have excellent tests at the end of each chapter to help determine the readiness of the group or individual for the next step.

PRINCIPLES OF CHILD GROWTH AND DEVELOPMENT APPLIED TO ARITHMETIC

As you move along in your teaching career, you will come to see that principles of child growth and development, stressed so much during your college preparation, can be and should be applied every day of the child's school experience. Here are but a few instances:

THEORY

1. Children learn in lags and spurts—not in perfect growth cycles.
2. Each child develops uniquely.
3. There is a relationship between emotional and physical development, and learning.
4. Children learn best when the task is adjusted to their level of maturity.

APPLICATION IN ARITHMETIC

1. Some processes for some children will require more time, more explanation, and more drill for mastery—thus the lag is not to be interpreted as failure or falling behind. Once the process is understood or mastered, the pupil may well *spurt*, as new and more difficult steps follow.
2. Do not expect the same quality or standard of work from every child. The bright child may *never* fully understand the *hows* and *whys* of division of decimals, while a slow learner may finally and fully understand this process.
3. Constant forcing of children who are not ready for certain concepts in arithmetic breeds discouragement and frustration.
4. Ragan points out that "Experiments in the teaching of arithmetic have shown that it is a waste of time and effort to try to teach concepts and processes before the child is mature enough to profit from the experience. These experiments have resulted in the postponement of certain topics and processes to later in the school program. Why pay a high price for strawberries in February when they will be much cheaper in June?"⁹

⁹ William B. Ragan, "Modern Elementary Curriculum" (The Dryden Press, New York, 1953), p. 66.

Arithmetic must be a satisfying process, and children must see a use for arithmetic and use it in everyday living. Teachers do not need to fabricate needs for arithmetic. We need only to look about us. Needs for children to use arithmetic almost every day are all about us, for children need arithmetic to:

1. Keep the daily attendance registers
2. Clerk in the school store
3. Line off the baseball diamond or "Fox and Geese" area
4. Plan for the class picnic or field trip
5. Keep the class treasury (all 19¢ of it!)
6. Keep account of weekly allowances
7. Make sure the clerk in the store gives back the right change.

You lengthen the list.

Let these needs enter your arithmetic teaching and learning naturally. Remember, though, that *not all arithmetic* can be taught in a context of life situations, nor used immediately upon being learned. For this, teachers should make no apology. Neither is all arithmetic interesting. And beware of making cookies (or churning butter, or making costumes, or pulling taffy) as dragged-in projects to be sure arithmetic is meaningful and interesting! Some teachers do this beautifully. So may you—in time. But maybe you are just not the cookie-making kind of teacher! Teachers who do not conduct these "practical" uses of arithmetic with wisdom and generalship may teach very little *measuring*. Instead, the pupils might easily take the measure of the teacher!

A FINAL LIST OF SUGGESTED PRACTICES IN TEACHING ARITHMETIC

1. As you teach arithmetic, you teach many other things which are very important: neatness, orderliness, legible writing, wise use of time, responsibility, independence, promptness, and vocal expression, as well as reading and other language skills, and art—and still more.
2. Children must be given a reason for doing what they are asked to do. Often the teacher doesn't really know. But more often, knowing, she does not share that reason with the children.
3. In arithmetic, as in all other activities, be a circuit rider, spending much of your time out among the pupils. How often teachers let their desks serve as a barrier between themselves and the pupils!
4. Don't be afraid to call drill "drill." It is a legitimate, necessary, and important part of arithmetic.
5. Some of the fun of arithmetic—some of the opportunity for children to work creatively—is denied children when the teacher always teaches the children *how* to negotiate every step, never allowing the boys and girls to figure out some new step for them-

selves. Respect, too, some of the different ways they arrive at the right answer!

6. Our responsibilities for teaching arithmetic in the elementary school should not be shifted to the home. What homework a child takes away from the classroom at night should not contain untaught concepts for parent assignment.
7. Teachers ought not make a fetish of not using "crutches"; some children may profit from them.
8. When textbook pages of story problems are being used, it may not be necessary to use every problem. Some examples may not even be appropriate to your pupils or situation. The authors of the textbooks have included many kinds of problems in order to cover many situations. Such problems are like a card of buttons purchased at the store: they may not all be needed.
9. Use the teachers' manuals! They are invaluable allies.
10. Children's arithmetic work must be corrected and analyzed with disciplined regularity. Teachers are urged to do as much of this with the individual child as is possible, for little time should elapse between the time an error is made and the correction understood. The degree of pupil correction, either by each pupil checking his own work, or by exchanging to correct, will have to be determined by the teacher. It is important that the teacher not lodge the total responsibility for such correction and analyses with the pupils.
11. When the teacher makes up problems for the children (and this is most desirable), much thought should go into the composition, lest the examples be unreal or informationally misleading. ("If Daddy catches thirty-six fish in the morning and forty-eight fish in the afternoon, how many fish did he catch?" What about game laws? Or the concept of conservation? "If Mother bought four and three-sevenths yards of muslin and three and five-sixths yards of percale, how many yards did she buy in all?" Will Mother buy material in this fashion? Should we lead children to believe that Mother will have to do this kind of addition as she does her shopping? Also, since yard goods are not sold in sixths or sevenths, a teacher would not want to use these fractions in this problem.)
12. Plan and plan well! Avoid the constant practice of having the class "Turn to the next page for your new assignment," when you haven't, yourself, turned that page ahead of time and determined how it should be approached or what you want it to accomplish. We must prepare to teach $2 + 2$, even though we have long known the answer!
13. In repetition, do not invariably wait for practical, urgent needs for teaching arithmetic or any part thereof. A pressing need cannot always be found, and is not always necessary to make arithmetic immediately useful. The meaningful theory is right and good, but

it cannot always be applied. The theory "When in Rome, do as the Romans do" may not always be wise, possible, or practicable. One might be in that city and really need to act like a Bostonian!

SUMMARY

The teaching of arithmetic in Composite School starts in the kindergarten, where the teacher makes an assessment of the arithmetic knowledge and understanding the five-year-old brings to this first school experience. She then builds her program in the light of this knowledge.

In each grade, arithmetic is taught according to a sequential program, course of study, or textbook-based plan.

The theories and principles of readiness and of child growth and development are easily applied in the day-to-day arithmetic experiences. Grouping for instruction is as necessary in arithmetic as it is in reading, for example. Grouping to meet the individual needs of children as they reach different stages of development and advancement is mandatory if we are to teach at our best.

Children should not be taught by the calendar—subtraction in November, measures in December, and the Roman numerals in April. When the *continuous growth* approach is practiced, as it should be, the "calendar approach" is clearly seen for the antique that it is.

PROBLEMS AND DISCUSSION TOPICS

1. Certain clearly defined objectives characterize kindergarten education. Show how an effective number program at this level can be utilized to help attain these objectives.
2. Illustrate some appropriate techniques showing ways in which understanding of the following concepts may be taught in the primary grades:
 - A. Meaning of ordinal numbers.
 - B. Telling time.
 - C. Understanding the calendar.
 - D. Using units of measure.
 - E. Subtraction of minuends through 10.
 - F. Understanding of terms: *add, subtract, equal, column, pair.*
3. Review number concepts to be taught in grades three and four. Compare the *new* concepts introduced in these two grades. Since fourth grade is considered by many authorities in arithmetic to be an extension of previous introduction to number, does this mean that the work in this year consists primarily of *review* for most pupils? If you answered Yes to this question, is your belief compatible with the principle of individual differences? Explain.

4. Why, in so far as arithmetic is concerned, have the upper elementary grades been called the "re-teaching years"? Does this mean that teachers in the primary and middle grades have not provided the type of instruction needed? That pupils have no further to go in new learnings in arithmetic? Discuss.
5. Describe three methods by which the teacher is able to provide individualized instruction in arithmetic.
6. As a middle- or upper-grade arithmetic teacher, outline steps to be taken in diagnosing individual pupil computational difficulties, and in organizing a remedial program to help those pupils who need assistance.
7. Discuss techniques of providing a challenging and worthwhile arithmetic program for the gifted pupil.
8. Examine standardized tests in arithmetic for the elementary grades. Point out common features in several of these instruments. In what respects and in which grades do test items greatly *differ* from content material in arithmetic textbooks? Copies of texts and tests may be examined in your college library, in the personal library of your instructor, or in a nearby elementary school.
9. If certain pupils are having difficulty with written problems in arithmetic, how can you discover *why* they are having trouble? See general reading references, especially, one of these authors: Brueckner, Clark, Morton, Spitzer, Stokes, or Wheat.
10. Teacher A in fifth grade is using fourth-grade, fifth-grade, and sixth-grade texts with her class. Can you defend this practice?
11. What are the advantages of using concrete objects in the introduction of number concepts?
12. List meaningful, out-of-class instructional activities which can be planned with pupils and which make arithmetic come alive.
13. Parents sometimes say, "I can't help my child with his arithmetic."
- They teach it so differently from the way I was taught." Is this fact or fiction?

WHAT WOULD YOU DO?

Donald, in sixth grade, is below grade level in most subjects but nearly two years below grade norm in arithmetic. He is a slow learner, with an I.Q. of about 90. He has an admirable attitude toward his arithmetic, working away at it with determination and loyalty. He often asks to remain in at recess time to finish his problems. You know that he is doing as much and progressing as well as he possibly can.

His parents come to school for a conference. They demand that you send his work home with him at the end of each day, "and we'll see that he gets it done if it takes till midnight! This boy of ours is *going* to learn his arithmetic!"

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CHAPTER 6

SCIENCE IN TODAY'S ELEMENTARY SCHOOL

OBJECTIVES IN ELEMENTARY SCHOOL SCIENCE

After working for many years with elementary children and with college students preparing to teach in the elementary school, we are firmly convinced that teachers have what amounts to a mission—to teach children to understand and to use science so that they and their fellow-men will enjoy its great benefits and control its terrific power. The teacher's purpose, then, is to help children discover effective tools, facts, and understandings for appreciating, enjoying, and controlling their environment. Some of the essential objectives in elementary-school science are these:

1. HISTORICAL AND SCIENTIFIC INTERPRETATION

Elementary-school children should have an opportunity to understand and appreciate man's struggle to discover the secrets of science—to learn something of the history of science and to study the lives of important scientists. One by-product of this study is that children will come to realize that science discoveries know no racial, color, or nationality characteristics—that all peoples have contributed to scientific progress.

2. APPRECIATION

Another important part of your job is to help children develop an appreciation of the contributions of science to a better place in which to live, a safer environment, and a more healthy world. The human side of the story of science can be as exciting as the scientific discoveries themselves.

3. UNDERSTANDING AND USING THE SCIENTIFIC METHOD

As children follow great scientists and scientific explorations through the tedious, careful searches for ways to prevent disease, for techniques in harnessing the atom, or for ways of tracking a tornado, they learn to

understand the procedures with which a scientist works. Teachers should help children identify and make use of these steps in objective method of inquiry:

- | | |
|-------------------------------|---|
| A. SEARCH AND EXPLORATION | Children must learn to locate and identify important problems. |
| B. DEFINITION | Children should learn to define a problem. |
| C. INFORMATION | Children must be helped to find all the information available and understandable. Books, films, newspapers, resource visitors, television, and educational trips are sources of this information. |
| D. EXAMINATION AND EVALUATION | Children must learn to examine, analyze, and appraise the information which they have gathered. Your guidance is especially needed at this juncture in helping boys and girls be as impartial and unprejudiced as they can be. This is a most critical step in application of the scientific method. Children should be taught to weigh evidence carefully. |
| E. FIRST CONCLUSIONS | Children should now learn to make first conclusions on the evidence which has been gathered. |
| F. PROOF | Children and teacher devise ways of testing conclusions. |
| G. CONCLUSIONS | Children should be given training and practice in making new judgments on the basis of testing first conclusions. |

4. CRITICAL THINKING

If you provide students with the opportunity to use the objective method described above, you will be contributing to society individuals who can *think for themselves* in solving problems. After all, children will not retain specific or isolated facts very long, but they cannot lose an ingrained way of thinking. The greatest contribution of elementary science is training in critical thinking. It is a contribution which cannot be restricted to any one study area, for it is valuable as boys and girls solve problems in living, playing, planning, and working together.

5. UNDERSTANDING AND SKILLS

This list of understandings and skills should be included as a significant part of the purposes for the program in elementary-school science.

UNDERSTANDINGS:

- Our environment and its organization.
- Our place in the environment.

Relationship of science to man's way of life.
Attitudes of a scientific nature.

SKILLS:

Observation.

Collecting, organizing, and evaluating data.

Effective study habits.

Applying understanding to everyday living.

Because objectives are extremely important if our purposes in elementary-school science are to be realized, let us quickly summarize these goals before we go further:

Children should be taught to appreciate the contributions of scientists and the significance of scientific discoveries.

Children should learn the human side of the story of science.

Children should learn to apply the scientific method of inquiry in problem solution.

Children should learn to think critically.

Children should acquire certain basic understandings and learn fundamental skills in their study of science.

SCIENCE OBJECTIVES AND CURRICULAR ACTIVITIES

Most elementary schools provide some basic science course of study. However, in your teaching you should be prepared to go beyond course outlines or suggested study topics in the pupils' textbook. The objectives in elementary science can be realized more effectively if you supplement your course of study with some of the following activities and experiences:

IN KINDERGARTEN AND FIRST GRADE:

Caring for pets, fish, and plants.

Trips through the school and near the school.

Building trains and trucks with blocks.

Comparison of drag and pull with and without wheels.

Building a house, studying the roof and the inclined plane.

Study of wheels, wagons, levers as aids to us in our work.

Simple collections—leaves, seeds, blossoms, and rocks.

Planning a science corner in the classroom.

Simple experiments with bar magnets.

Find out how fire was discovered; what would life be like without fire?

Study the change in the seasons and effect on the kinds of clothing we wear.

IN SECOND GRADE AND THIRD GRADE:

Extend collections of seeds, leaves, insects, and minerals.

Find out and study how seeds travel.

Discussion and study of such topics as "What are clouds?" "What makes it rain?"

Additional reading to supplement observation.

Take children on longer educational trips

Help children build bird houses, weather vanes.
Take an old alarm clock apart; study its operation.
Study how man uses machines, plants, and animals to make his living more comfortable.
Observations in the community of men at work—building houses, constructing drains, providing electricity for homes, painting houses, resurfacing roads, building bridges.
Increase amount of experimentation: make candles, rust nails in water, compare different types of soils.
Keep records about weather and seasons.
Study superstitions.
Begin a classroom zoo.
Keep a terrarium, an aquarium.
Study birds, snails, fish, pets, animals.

IN FOURTH GRADE AND FIFTH GRADE:

Greatly increase reading in science.
Study influences of climate and geography upon people, occupations, and regions.
Make detailed graphs, drawings, and illustrations.
Begin to help children classify science collections.
Provide experiences in cooking foods and in using tools.
Study life cycles of animals.
Make and keep charts on the changes of pets: growth, weight, amount of food eaten.
Keep records on white rats and hamsters.
Start a bacteria garden; use the microscope.
Find out what various foods do for the body.

IN THE SIXTH GRADE:

Perform experiments to show that plants need light, food, and water; keep accurate records.
Grow plants of many kinds in the classroom and outdoors.
Make telephone and telegraph sets.
Put a crystal radio set together.
Increase amount of reading in science.
Help children organize a science club.
Study diet and physical health problems.
Study problems of mental health.
Study good grooming.
Increase experimentation with solids, liquids, gases.
Study the lives of scientists and the history of their discoveries.
Study the solar system in relation to time and space.
Study space rockets and the ways in which man can put them to useful work.
Study space satellites.
Study interdependence of all living things on earth.
Keep a vocabulary list of new science terms.¹

¹ Adapted from *Science*, East Lansing Public Schools, East Lansing, Mich. 1956-57, pp. 4-11.

CONTENT OF THE SCIENCE CURRICULUM

If you examine several basic elementary-science textbooks, you will find the content for the various grades just about the same in each series. The writers believe that children should have opportunity to study a basic text from one grade to the next, since continuity, scope, and sequence are thus provided at the different grade levels. This does not mean that the program is *limited* to the areas presented in the textbook. If this were so, the program might be monotonous and unproductive. When you begin your teaching, the adopted textbook for your grade will furnish basic content. It is the teacher's responsibility to supplement the material in the text with varied science experiences. The science activities listed above are examples of added experiences for which you should plan. We should like to point out that basic content which provides for continuity and sequence of instruction may be assured through the development of a local school program along with the use of the regular text—that the two teaching resources may give you a more effective science curriculum. The following grade-level program built around six common content topics provides an outline which may help you to understand what should be included in your science teaching:

THERE ARE MANY LIVING THINGS ON EARTH.



SCIENCE IN THE FIRST GRADE²

- I. There are many kinds of living things on the earth.
Plants and animals live almost everywhere on the earth.
- II. Earth conditions are changing.
Our earth is made up of air, water, and land.
- III. Matter and energy are subject to many changes.
Air surrounds us.
- IV. The earth is a small part of the universe.
The sun, moon, and stars are in the sky.
- V. Plants and animals survive many changes.
Plants and animals are active in spring.
- VI. Living things are interdependent.
We get our food from plants and animals.

SCIENCE IN THE SECOND GRADE

- I. There are many kinds of living things on the earth.
Animals must have food.
- II. Earth conditions are changing.
The weather is always changing.
- III. Matter and energy are subject to many changes.
A. Water passes through many changes.
B. Magnets push and pull things.
- IV. The earth is a small part of the universe.
The earth is a heavenly body.
- V. Plants and animals survive many changes.
Animals have young.
- VI. Living things are interdependent.
We should take care of many animals.

SCIENCE IN THE THIRD GRADE

- I. There are many kinds of living things on the earth.
Plants must have food.
- II. Earth conditions are changing.
The earth's surface is changing.
- III. Matter and energy are subject to many changes.
A. Heat comes to us from the sun.
B. Work can be made easier.
- IV. The earth is a small part of the universe.
Our earth moves.
- V. Plants and animals survive many changes.
New plants are produced in several ways.
- VI. Living things are interdependent.
Many plants need our protection and care.

SCIENCE IN THE FOURTH GRADE

- I. There are many kinds of living things on the earth.
Some plants and animals live in communities.
- II. Earth conditions are changing.

² Adapted with permission from *Science, op. cit.*, pp. 14-22.



THE EARTH IS A SMALL PART OF THE UNIVERSE.

- Plants and animals have lived on the earth for a long time.
- III. Matter and energy are subject to many changes.
 - A. We can make electricity in several ways.
 - B. Light enables us to see things.
- IV. The earth is a small part of the universe.
 - The moon is the heavenly body nearest to the earth.
- V. Plants and animals survive many changes.
 - Flowers are necessary to produce seeds.
- VI. Living things are interdependent.
 - Plants and animals depend upon one another.

SCIENCE IN THE FIFTH GRADE

- I. There are many kinds of living things on the earth.
 - Plants get food in different ways.
- II. Earth conditions are changing.
 - Seasons are caused by changes in the earth's position as it revolves about the sun.
- III. Matter and energy are subject to many changes.
 - A. Substances are always changing.
 - B. A layer of air surrounds the earth.
- IV. The earth is a small part of the universe.
 - The earth is a member of the solar system.
- V. Plants and animals survive many changes.
 - Living things are always changing.

- VI. Living things are interdependent.
We must conserve natural resources.

SCIENCE IN THE SIXTH GRADE

- I. There are many kinds of living things on the earth.
Animals need food for growth and energy.
- II. Earth conditions are changing.
Weather and climate are constantly changing.
- III. Matter and energy are subject to many changes.
 - A. We can make electricity work for us.
 - B. Sound travels through matter.
- IV. The earth is a small part of the universe.
The sun is a member of our galaxy.
- V. Plants and animals survive many changes.
Man has changed some plants and animals so that they are better suited.
- VI. Living things are interdependent.
Our health must be safeguarded.

PROCEDURES IN TEACHING SCIENCE

A discussion of procedures of teaching must take into account how children learn. The following suggestions for teaching elementary science are presented with this fact in mind.

1. CHILDREN LEARN SCIENCE THROUGH OBSERVATION

Observation is essential in the teaching of science, and this activity must be fostered in your program. Children have a natural "bent" for things scientific. They are extremely curious at all ages in the elementary school. They learn by watching, feeling, lifting, smelling, listening, testing, measuring, and by a combination of these means. They must observe to see how plants and animals grow, to note changes in the weather, and to find out characteristics of objects. Observation and the utilization of the senses are significant, since children have innumerable contacts with scientific phenomena.

1. They have caught lady bugs and other insects, examined them, and kept them as treasures.
2. They have dug worms and inspected the pieces when a worm was chopped in two.
3. They have looked for the eyes of a mole.
4. They have been stung by honeybees and have stopped crying long enough to look at the stinger.
5. They have watched a kite flown high into a strong wind.
6. They have collected and examined pine cones and leaves.
7. They have watched with sadness the disappearance of summer and the coming of September.

8. They have gazed at an airplane's vapor trail in a clear, blue sky.
9. They have listened to thunder and watched lightning.

Science achievement in the elementary school depends greatly on observation. What would be the success of a field trip to note soil erosion and conservation activities without observation? Such activities as the use of films and science experimentation are rather useless unless children have been taught effective observation habits. One of the important jobs of the elementary teacher is to arrange the science program so that it includes many activities in which children can observe the nature of things and the characteristics of change—"watch to see what happens." Children must also be taught to observe accurately in order to report results in a correct and careful manner.

2. CHILDREN LEARN SCIENCE THROUGH READING

Reading is one of the most important ways of learning in science. However, many teachers too often permit the science program to degenerate into "another reading period." When this happens, interest in science lags. Science, of course, is much more than "reading a unit or a chapter from the textbook and answering the questions on page 109."

This method of teaching science is best when teachers recognize that reading serves different purposes and when they emphasize properly the role of reading in learning science. Reading is important to science when children are seeking facts, when they are searching for answers to scientific questions, when they are testing their own theories or guesses by reading for "right" answers, when they are checking conclusions or searching for steps in solving a problem.

The children's purposes are important. Here is a clue to the teacher to "bring the pupils with you" or to include them in the planning of "why read?," "where read?," and "how read?" in science. In practically all learning situations in the school, reading is necessary. Especially in science, you must help children understand its significance, and you must provide for range in reading abilities and for variety in resources if your class is to realize optimum results.

Reading helps children achieve the objectives of science that were discussed at the beginning of this chapter. If children are to understand and appreciate the contributions of the scientist, they must read. Indeed, they cannot properly interpret and make use of the scientific method without reading. Expression of correct conclusions, checking sources of opinions and ideas, and thinking critically arise in part from reading. Reading is undoubtedly the most important source for children as they achieve those skills and understandings included in elementary-science objectives.

3. CHILDREN LEARN SCIENCE THROUGH EXPERIMENTATION

Just as observation and reading play a part in learning science, experimentation also has a very important place in today's elementary-science

program. Every elementary teacher should conscientiously encourage experimentation. This does not mean that you must have the equipment and materials of the high-school physics and chemistry laboratories. In fact, most elementary-science projects discussed in current textbooks call for simple and rather inexpensive equipment.

We should like to make these suggestions about experimentation in elementary-school science:

- a. Elementary science in too many classrooms in every county and community in the country is void of motivation and learning possibilities which experimentation could provide. Teachers often may not want to bother to improve the teaching of science by planning experiments with children. This situation is not caused by a lack of knowledge of the value of the experiment by teachers nor by the failure of boards of education to provide facilities, equipment, and instructional supplies in science. Neither is it caused by lack of training in elementary-science principles and methods in teacher education programs. For the most part, this void in science instruction comes about because elementary teachers do not take the time to plan experiments. When you begin your teaching in Composite School, U.S.A., our hope is that you will from the start make experimentation a definite part of your science teaching.
- b. Keep your experiments in science simple and easy. Elementary-science textbooks of nearly every series will provide you with suggested experiments on the grade level which you will teach. Study the teacher's manual which accompanies the adopted series for additional ideas for good experiments.
- c. Make use of equipment that is generally easy to secure. Fruit jars, pie tins, discarded jelly glasses, pieces of scrap screen, flower pots, baking soda, and salt are examples of materials that children may bring from home.
- d. The experiment should be utilized so that children can find out what happens under certain conditions and circumstances. Never make the mistake of telling pupils the results before the experiment is performed.
- e. *Plan your experiments.* Good science experiments are the result of adequate planning.
- f. *Let the children perform experiments.* Give them a part in planning, carrying out, and drawing conclusions in the experiments.

The purpose of the elementary-school science experiment is not to break through the barrier from known to unknown but to help boys and girls understand science concepts more concretely.

4. CHILDREN LEARN SCIENCE THROUGH EDUCATIONAL TRIPS

Science learnings in the elementary curriculum should not be confined to the four walls of the classroom. There are many kinds of experiences

needed by children in the elementary grades which can be provided more effectively by field trips than by other means. Some of these are listed for you: insect collections, observation of the habits of birds and wildlife, identification of plants, shrubs, and trees, collecting tadpoles, finding wild flowers and leaves, studying conservation practices, noting effects of water and wind erosion on soil, determining results of unwise use of natural resources, locating and studying mineral formations, collecting rocks and stones, studying sewage treatment and purification of water, and finding answers to questions about local manufacturing, transportation, and communication problems.

5. CHILDREN LEARN SCIENCE THROUGH AUDIO-VISUAL MATERIALS

A class of fifth-grade pupils from Plattsburgh, New York, may not be able to take a trip to see an automobile assembly line in operation, but this is common practice in Flint, Michigan. Neither would a sixth-grade class from Bellingham, Washington, visit the electric power plant at Niagara Falls. Such trips are unnecessary when long distances are involved because these classes can learn much from viewing an educational film. Available to elementary teachers are audio-visual materials which do certain jobs of teaching science better than any other procedure. For example, microscopic slides may be projected to a screen for study simultaneously by all pupils in a class, thus saving the time needed for individual microscope adjustment and viewing. Films, film-strips, slides, flat pictures, collections, and models suitable to most grade levels can be secured on almost any topic. This method of teaching should not be neglected in your plans.

SCIENCE MATERIALS AND EQUIPMENT

Equipment and supplies are necessary if the objective of scientific inquiry is to be achieved. The equipment need not be expensive or elaborate; much of it can be brought to the school by the pupils. Here is a list of science equipment and materials which should be available for teacher and pupil use. The individual school need not necessarily have everything included in the following list, since the school system may prefer to make up kits for particular units and circulate these as teachers need them.

OBTAINABLE FROM SCIENTIFIC SUPPLY HOUSES

1. ELECTRICITY AND MAGNETISM

Piece of lodestone.	Electric lamps and sockets (small).
Pair of bar magnets.	Fur for rubbing friction rods.
Large horseshoe magnet.	Colored pith balls for static electricity.
U-magnet.	Demonstration electric motor.
Knitting needles.	Telephone receiver.
Shaker of iron filings.	Telephone transmitter.
Magnetic needle.	Dry cells.

Magnetic compass.	Insulated copper wire.
Glass friction rod.	Electric push buttons.
Hard rubber friction rod.	Electric bell.

II. AIR AND WEATHER

Glass barometer tube with well and medicine dropper for filling with mercury.

Mercury (3 pounds needed).

Tin cup.

III. SOUND AND LIGHT

Tuning fork.

Concave and convex mirror.

Color rotator to show results of mixing colors.

Prism.

Reading glass, 2-inch diameter.

IV. FIRE AND HEAT

Boy Scout fire-drill set.

Ball and ring apparatus to show that metals expand when heated.

Compound bar to show that some metals expand more than others when heated.

Apparatus to show that heat travels faster in some metals than others.

GENERAL SUPPLIES AND APPARATUS

Iron ring stand, large size.

Clamp for ring stand.

Iron ring with clamp for fastening on ring stand.

Wire gauze with asbestos center for placing over rings or tripod.

Iron tripod.

Forceps for handling heated objects and chemicals.

Tongs for lifting hot objects.

Iron spoon for heat and chemical work.

Alcohol burner or Bunsen burner (Bunsen burners are usable only with gas).

Rubber tubing for Bunsen burner, one-fourth inch inside diameter, 4 feet.

Rubber stoppers, solid, 1- and 2-hole, assorted sizes, 2-6.

Corks, bag of assorted sizes, 12-16.

Corks, bag of assorted sizes, 0-11.

Test tubes, 6 by three-fourths-inch (pyrex).

Test-tube holders.

Test-tube brush.

Test-tube holder (holds 12 tubes).

Glass tubing, 6-millimeter outside diameter.

Rubber tubing to fit glass tubing, three-sixteenths-inch inside diameter.

Pyrex flask, 1-pint size.

Battery jar, small size.

Battery jar, large size.

Glass funnel, 100 millimeter top diameter.

Glass graduate, 100-cubic-centimeter capacity.

Thermometer, double scale (both centigrade and Fahrenheit).

Pyrex beakers, nest.
 Powdered iron.
 Petri dishes (for growth of bacteria).
 Litmus paper.
 Powdered sulfur.

OBTAINABLE FROM LOCAL SOURCES

I. LIVING THINGS

An aquarium (stocked with fish, snails, water plants).
 A terrarium (stocked with growing plants, a suitable place to keep a small turtle, a frog, or salamander, or small snake).
 Larvae of different kinds.
 Cocoons and chrysalids.
 Seeds (bean, corn).
 Growing plants (geranium, ivy, begonia, bulbs, cactus).
 An ant observation house.

II. GLASSWARE

Fruit jars.	Pieces of window glass which may
Milk bottles.	be cut into small-sized pieces.
Glass tumblers.	Flower pots (various sizes).
Lamp chimneys.	Small mirrors.
Cups and saucers.	

III. MISCELLANEOUS

Safety matches.	Paring knife and table knife.
Scissors.	Colored chalk.
Teaspoons and tablespoons.	Blotters.
Tin cup.	Wire—steel and copper.
Rubber bands.	Balls.
Ball of string.	Flashlight.
Scraps of different kinds of metal (zinc, aluminum, copper).	Scraps of different kinds of cloth (silk, wool, cotton).
Worn-out dry cell.	Burned-out light fuses of various kinds.
Pans of various shapes and sizes.	Burned-out flash bulbs.
Hot plate.	Worn-out electric motors.
Needles.	Candles of various lengths.
Tongs.	Sand, clay, loam, humus.
Egg beater.	Globe and map of the world.
Rubber balloons.	Medicine dropper.
Cellophane (clear and colored).	Yardstick.
Pet cages.	Chalk boxes.
	Nutcracker.
	Wedges.
	Gummed labels.

IV. CONSTRUCTION MATERIALS

Nails, tacks, screws.	Hammer, pliers, file, screw driver.
Paints and varnishes.	Glue and paste.

V. CHEMICALS

Soda.	Marble chips.	Vinegar.	Ammonia.
Starch.	Lime for lime water.	Table salt.	Iodine.
Sugar.	Red ink.	Paraffin.	Dyes.

VI. COLLECTIONS

Seeds and fruit.	Local rocks, minerals, fossils.
Leaves.	Science pictures of various kinds.
Shells and other sea life.	Insects.
Birds' nests (made in autumn). ³	

RELATING SCIENCE TO OTHER SUBJECTS

Interest in science will be increased if you relate science to other subjects or units which they are studying. For example, when a fifth-grade class is studying transportation in social studies, scientific inventions and discoveries pertaining to the use of the wheel, the gasoline motor, the use of electricity, and the like should be emphasized. The possibilities are many for teaching science in every social-studies unit for each grade in the elementary school. As you plan instructional units with pupils, try to find places where related science understandings will fit. This is generally easy. Children will make good suggestions for the study of important related concepts in science if you give them the opportunity. Science topics selected for related study will depend on the maturity and experiences of the children and on the grade which you are teaching.

SOCIAL STUDIES AND SCIENCE

You may find it both interesting and worthwhile to try relating the study of science understandings with social-studies units. Some ways in which this can be done are presented in the two units as follows:

SOCIAL STUDIES UNIT—GRADE TWO

"The Baker"

RELATED SCIENCE UNDERSTANDINGS

QUESTIONS:

1. What do seeds need for growth?
2. What happens if seeds do not have sunlight and water?
3. How is wheat made into bread?
4. What happens to our food if it is not kept free of germs and bacteria?

³ Glenn O. Blough and Paul E. Blackwood, *Teaching Elementary Science, Suggestions for Classroom Teachers*, Bulletin 1948, No. 4, Reprint, 1953, U.S. Department of Health, Education, and Welfare (Washington, D.C.: U.S. Government Printing Office, 1953), pp. 33-35.

5. How do machines help the farmer, the miller, the baker?
6. What are some ways of keeping food safe and clean?
7. What happens to us if we eat food which is not clean?
8. What is meant by flavoring food? How is it done?

SUGGESTED SCIENCE ACTIVITIES:

1. Plant wheat in school and keep an accurate record of its growth.
2. Experiment to see what happens to wheat plants if they are not watered.
3. Keep some wheat plants in a dark place. What happens?
4. Bake bread in the school kitchen—some seasoned with salt, some not seasoned; try baking without yeast. What happens?
5. Keep a list of new science terms encountered in this social studies unit.

SOCIAL STUDIES UNIT—GRADE THREE

"Man Needs Clothing and Shelter"

RELATED SCIENCE UNDERSTANDINGS

QUESTIONS:

1. Why is woolen cloth warmer than cotton cloth?
2. How does the silkworm make silken fiber?
3. Why are light-colored clothes cooler than dark-colored clothes?
4. Prove by experiment that dark cloth absorbs more heat than light cloth.
5. How is electricity used to save the time of a carpenter?
6. Some clothing is made from natural fibers, and other clothing comes from artificial fibers. Write a report on the differences.
7. How is cloth colored?
8. What causes fading?
9. Why do some kinds of cloth fade more than other kinds?

10. How do wild animals provide shelter for themselves?
11. Why do the Chinese build houses of bamboo, whereas the Eskimos use blocks of ice in constructing a home?
12. How do we regulate the temperature of our homes?

SUGGESTED SCIENCE ACTIVITIES:

1. Make a list of different kinds of building materials and discuss why some are used in one section of the world more so than in other sections.
2. Find out where we get the water supply for our homes. Tell the class how our city keeps its water pure and clean.
3. Visit the boiler room in the school and talk with the school engineer about how he keeps the building heated and clean.
4. Invite a member of the community to the class to demonstrate how a spinning wheel is used.
5. Teach weaving to children on individual looms.
6. Help children experiment with the process of dyeing white fabrics with natural dyes, such as walnut hulls, berries, and oak bark; also use commercial dyes. Observe differences.
7. Collect different samples of fabric and label each according to plant, animal, or artificial origin.
8. Demonstrate what happens to pieces of woolen cloth when washed in cool water or placed in boiling water.
9. Demonstrate proper care of rain-soaked clothes to prevent mildew.
10. Collect and exhibit cotton bolls, ginned cotton, cotton wadding, and various kinds of thread and cotton cloth.

ARITHMETIC AND SCIENCE

It is not difficult to relate arithmetic and science. Some of these activities may provide you with ideas from which you can develop others suitable to the grade level you are teaching: As kindergarten children build a house with blocks and building boards, work with estimating and measuring and point out that the pitch of the roof is related to the strength. Here is an elementary way concepts of inclined planes can be begun. As these five-year-olds play on the teeter-totter, show them the principle of the fulcrum: On the teeter-totter why does a heavy boy go down while a lighter boy goes up? Let kindergartners use the scales in the health clinic to compare weights in their investigation of the principle of the fulcrum. Do not expect kindergarten and primary pupils to understand the scientific laws involved, but do give them opportunity where possible to make use of number in testing some of these scientific principles. In the primary grades many opportunities will occur for children to use number in counting specimens in a collection, in comparing numbers in groups in science exhibits. If pupils are studying birds or weather and build a bird house or a weather vane, they must use number in accurate measurements. In the middle and upper grades thermometers must be read and numbers used; number of revolutions per minute of a quarter-horsepower electric motor must be understood and interpreted; reading and understanding gas meters, water meters, and electric meters brings number into science, and computing the cost of service bills adds arithmetic to science instruction. Other examples of relating these two subjects are these: keeping accurate mathematical weather records, figuring the cost of an aquarium, making and interpreting graphs, tables, and charts in science, recording increase in pupil height and weight and making comparisons, estimating the cost of building a telephone set or a crystal radio, and measuring accurately and using numbers in many kinds of science experiments.

SPELLING AND SCIENCE

Watch for opportunities to include new words encountered in science in the weekly word lists for spelling. If science notebooks are made in unit study, one activity should be a science vocabulary section. Some of these words should be used for spelling instruction.

LANGUAGE ARTS AND SCIENCE

The relationship between reading and science has been discussed previously in this chapter. As children move into the middle and upper grades, added emphasis will be placed on individual and group activities requiring written and oral expression. Oral reports about feeding stations, rocket firing, care of pets, health and safety practices, and scientific discoveries should be encouraged. If pupils make science notebooks or scrapbooks as activity projects, don't pass up the opportunity for panel discussions. There are innumerable opportunities in science

to make use of oral reports. You do not have to wait for the language arts period to review proper rules of good oral presentations. This instruction is just as appropriate in the science period as during any other session of the day. The significant point is that the instruction should be applicable to the activity and should be given when needed. Writing paragraphs about life cycles of insects, animals at the zoo, seasonal changes in plants, movements of the earth, and other science topics is a part of science, too. Writing reports on conservation practices, thank-you letters to persons who have helped with a field trip, and describing other projects give children added experiences in relating language arts to science.

THE TEACHER MAKES THE DIFFERENCE

As a beginning teacher, you will probably not dictate the kind of science program in which you will find yourself. Our opinion, frankly, is this: The method used will not make much difference, providing you know you are able to work effectively with boys and girls toward those science objectives discussed in this chapter. In other words, *you*, not the prescribed curriculum, will make the difference between a good and a poor program in elementary-school science. A mediocre teacher, with little knowledge of science and little ability to motivate further science learning, will still perform poorly even with the best prescribed curriculum in his state. So the science program in your classroom is principally *your* responsibility. The manner in which you accept this important challenge rests in your hands.

FROM THEORY TO PRACTICE

The knowledge which you have of elementary science, as well as the understanding you have of science objectives and content in the elementary curriculum, must be transferred into *activity in the classroom* if you are to be an effective teacher of science. At this point, we would like to show you ways in which you can fruitfully apply to your classroom science teaching much of the scientific principle, theory, and method you have acquired. We want you to see how you can bring your own storehouse of science knowledge and understanding to bear on your classroom experiences.

SUBJECT KNOWLEDGE

In a departmentalized instructional program, the pupils are inclined to size up each specialist after a few sessions. The arithmetic teacher may be "swell," the music instructor "makes the class interesting," and the social studies teacher "too tough."

It is our belief that the elementary teacher who teaches in a self-contained classroom is judged first as a person and then as a teacher. Children undoubtedly rate him in each of the subjects but will probably be much kinder and less critical than secondary-school students.

Nevertheless, elementary pupils, even the very youngest, are quick to detect uneasiness, insecurity, or bluffing on the part of a teacher in any subject. They admire and readily accept a teacher who is honest about his lacks. The teacher who is willing to learn along with the pupils will have little or no difficulty securing the co-operation of boys and girls in any subject in which he feels inadequate. In the self-contained classroom, teachers naturally will not be expert and highly skilled in all subjects. But teachers can teach all subjects if they plan effectively and if they learn how to correct their own imperfect knowledge of subject matter.

TEACHER INTEREST—A PRIME FACTOR

Especially in the area of science will a teacher soon be "found out" if he attempts to bluff or if he evidences insecurity in the subject. He need do neither, for every teacher can feel secure and comfortable in the teaching of science in any elementary grade. And he need not be a scientist nor science major. The prime requisite for successful teaching of elementary-school science is simply an interest in science. Having this, teaching science and interesting children in the world of scientific adventure follows naturally. You still do not have to like snakes, and you will not lose face telling the children so. This will in no way prevent your teaching about snakes in an acceptable manner.

Although excellent textbooks are common in most elementary schools today, so abundant are the opportunities to teach science that children could have rich science experiences were no books available. Fortunately, textbooks are our constant allies. With all our resources, then, opportunities and situations for teaching science abound in the hours of every day. In the elementary school, we need but to look about us to teach science to children. It is everywhere. It almost teaches itself. Even raising the schoolroom windows because, "My, children, don't you think it is stuffy in here?," can provide the stimulus for a lesson in science.

Why is it stuffy?

What is "stuffy"?

What scientific principles are involved in air and temperature change? How do we feel in a "close" room? Why?

The teaching of science can be the most exciting and satisfying area of the curriculum for any teacher.

MOVING SCIENCE OBJECTIVES INTO ACTION

I. HISTORICAL AND SCIENTIFIC INTERPRETATION AND APPRECIATION

Unit by unit, year by year, this particular objective permeates all science action and study. Interpretation and appreciation do not come to the child automatically or easily; the teacher must help

children relate *what is* to its historical origin, discovery, or development in order to build an appreciation of both the contribution of discoveries and inventions to our daily lives and the scientists who brought them about. Two examples of how teachers worked toward this goal follow:

- A. The unit was "Electricity." The teacher started where the children were (living in today's electrical world) and with what they already knew about electricity.⁴ As the study began, the children identified and discussed the countless electrical blessings we have today. Electricity, its effect and contribution to everyday life, and electrical machines and systems were studied. To make the pupils' appreciation deeper and their understanding keener and broader, at a propitious time the teacher began leading the children back into the history of electricity—back to Edison and Franklin and to the Danish scientist Oersted and his electromagnet. Among the resources used in this stage of the unit were libraries, a visit to an electrical museum, experimentation, audio-visual aids, a parent lecturer, and a short class play on this subject, written by some of the children.

Through the study of the long history of electricity and the people responsible for its development, the teacher sensed growth of her pupils in the realization of this objective.

- B. In a study of "Man and Machines" in an upper-grade class, the teacher guided the children to the days of Archimedes and his experimentation with machines and even farther back, to the building of the pyramids. Experimentation with the lever, block and tackle, steam, the screw, and the inclined plane helped the children to see how things once were in the development of the machine; how happy people must have been hundreds of years ago with the simplest machine that made their work easier for them.

A study of many of the men who played prominent roles in the history of the machine helped the children to appreciate both the contributors and their contribution.

Surely, if the teacher was successful in her aims—and we feel she was—the children of that room must have looked with new appreciation and even with a bit of awe at Mother's automatic laundry. Perhaps it was the first time they had really *seen* it.

CAPITALIZE ON THE INCIDENTAL, TOO

Occasionally there are opportunities on which teachers can capitalize to further help children see the relationship of the past to the present in science. Such an incident is this one:

⁴ Teachers need to make an evaluation of what children already know about a subject before planning what they will teach, whether in science or in any other subject. We will often be surprised at what children may already know about a subject. We should not "teach" them what they already have learned.

The school had to be closed one morning at 11 o'clock and the children sent home because the heating plant failed. This incident eventually led one class into a discussion and activity relating to the scientific history of how man has been and is now mechanically kept warm. Incidentally, the teacher discovered a number of children in the class who really did not know how their own homes were heated, and there were some wild guesses about what kind of heat kept the school building warm. Off they went, with the engineer, on a tour.

In this incidental study, the children also realized that there are still scientific hinterlands to be probed—discoveries and science progress still to be made. After all, the furnace did fail!

Such matters currently in the minds of all as the discovery of polio vaccine by Jonah Salk and the advances in weather prediction and control which give us a better chance against tornadoes and hurricanes can easily lead a class into activity and discussion which will further help realize the learning goals.

II. UNDERSTANDING AND USING THE SCIENTIFIC METHOD

We would have children know and understand the *method* by which scientists, and all of us who are not scientists, achieve our goals—in other words, the “scientific method.”

In elementary-school science and with elementary-school children, however, it seems unwise to involve the pupils too deeply in the matter of the scientific method or a scientific approach to problem-solving; this will come later in the secondary school, where it will be more easily understood and have more meaning. Nevertheless, a beginning can and should be made in the elementary school, with simplicity as the guide word. Here is an example:

The class was involved in a study of Plant Life, a regular part of the curriculum for this grade. Out of this study grew a desire on the part of the children to study plants which they brought temporarily to their classroom. Then they decided to have permanent plants in the room to help make it a more attractive place in which to work and play. In planning this activity, the students were encouraged to use the scientific method. Notice how easily and naturally the steps outlined on page 103 of this chapter follow one another when there was a problem that was *real* to the children, one which they were eager to solve.

PLANT LIFE—DETERMINING PLANTS BEST SUITED TO GROWTH IN OUR CLASS-ROOM

A. SEARCH AND EXPLORATION:

Exploring the idea. Could they have plants in their room? They determined that there were many places for plants—window sills, on a table, “and we could build us a plant rack!” So

- they further explored the idea and decided that what they wanted to do was possible, and that they wanted to do it.
- B. DEFINITION:** Defining the problem was quite difficult. You will find this true in many situations when working with children. They are so enthusiastic, so confident, and so eager that their plans, if not tempered, will far exceed their abilities. Finally, with a goodly amount of teacher guidance, the problem was defined: to select the ten plants that would be the most attractive and would grow well in the room, with its particular lighting, temperature, and humidity.
- C. INFORMATION:** Followed then the gathering of information about many house plants and their potential for this particular purpose.
- D. EXAMINATION AND EVALUATION:** They critically and thoroughly examined the information collected. The teacher watched for partiality. A certain child might not accept proof that geraniums were best for the room because he really wanted orchids.
- E. FIRST CONCLUSIONS:** Based on study and information, including a committee visit to a florist, a decision was made, and ten plants of various kinds were selected.
- F. PROOF:** The plants were sowed, slipped (geraniums) and brought in already growing. They included four plants which the children had rejected as unsuitable. These four plants were brought in to test the children's decision. After several weeks (it was so difficult for the children to wait), the children began to see proof. Not all plants that were supposed to grow well, did. The children could not determine why some plants died. But after all, we did warn that elementary children are not capable of being too deeply scientific in problem-solving. The teacher constantly kept before the children the fact that *other elements*, if not controlled, could have a negative effect on the plants. Such elements as too much or too little water, heat or lack of it, too much sun, and the like, were noted. The rejected plants did not grow well, as the children had predicted. Perhaps not too much can be claimed for the project. But at least the children were moved

from the "wild guess" stage to one where more thought and experimentation were applied in solving a problem.

Seizing on the incidental and unexpected can also help the teacher teach the scientific method of procedure. We must not wait for such occurrences, or, once they do happen, plan great activity around each one. Sometimes such a good one comes along, however that time can well be spent on it. Here is one of those situations which afforded an opportunity for a group of children to understand and use the scientific method. We will see, again, how easily and naturally the steps outlined on page 103 follow one another when, as in the plant unit, the problem was real to the children and a solution was greatly desired.

**A. SEARCH AND
EXPLORATION:**

A second grade class returned from lunch one fall afternoon to find their fish dead. The fish had been swimming vigorously all morning. Now they were floating lifeless on top of the water. The *problem* was located.

B. DEFINITION:

They had no trouble defining or pinpointing their problem.

C. INFORMATION:

What caused the fish to die? Following the sadness of the discovery and the disposition of the remains, the children and the teacher began a search for the cause. What makes fish die? What made *our* fish die?

"We forgot to feed them!" one child said.
(Oh, oh! Jumping to conclusions!)

"The food got poisoned!" said a second child. (Scientific method *not* being used.)

"The water got stale" joined in a third pupil.
(A guess spoken as fact.)

The teacher said, "Let's get some information about fish. Only in that way can we find out how they might have died."

Off to the library!

Up to see the aquarium man at his store!

Out with the fish books!

Home to ask Mother and Dad!

**D. EXAMINATION AND
EVALUATION:**

With the information gathered (some of it conflicting), they began to examine:

1. The fish food in the box wasn't poisoned, it was learned. "The fish man said so!" That's good enough for us! (This was a second-grade class.)

2. Examination ("We changed the water only yesterday!") proved the water was not stale.

E. FIRST CONCLUSION:

The water must have become contaminated or poisoned. All testing and data pointed toward this conclusion. The fish died because something in the water made it lethal. (Like O.

F. PROOF:

Henry, we have saved the climax for the very end. The teacher at noontime, had sprayed the room to kill those pesky flies we spoke about in an earlier chapter.)

Poison kills fish. We know our teacher sprayed poison around the fish bowl. On the can is written, "Remove bird cages and fish bowls from rooms to be sprayed." Our teacher didn't—so our fish died.

G. CONCLUSION:

An insecticide killed the children's fish.

H. DECISION AND ACTION BASED ON CONCLUSION:

"We must make sure that no foreign elements are permitted to get into our fish bowl ('Our teacher is going to get us some *new* fish!')." The children discovered, in their search, many new foreign elements that might kill their fish another time, such as wiggling dirty fingers in the water, letting chalk dust enter the water, feeding too much and permitting uneaten food to contaminate the water.

Had not the teacher been science-minded and alert, the boys and girls would have missed this learning experience. She knew, even before the children came in from noon recess, that her spraying had killed the fish. Therefore, she might merely have said, "Boys and girls, I sprayed the room for flies and it killed all our fish. I'm sorry, and I will get some more fish." But she didn't.

This, of course, was a major problem for the children and was quite involved for second grade. We must not assume that we must wait for or depend on the bigger problem in order to follow through sequential steps of problem solving. Even as simple an experience as mixing paints in the kindergarten is a "natural" for developing the scientific method (perhaps teachers might call this a "trial-and-error" method). "There is no purple paint in the jar, Miss Alice! I need some for my flower." The problem!

The busy kindergarten teacher may merely stop and fill the jar or quickly stir up a new batch. Or she can lead the child (and the whole class, for others will need that paint, too) through the discovery of how to fill the paint jar himself. Give the child the various boxes of powder paint, some water, a pan, cover him with *two* of Dad's old shirts, give him plenty of room, and alert the custodian! "I mixed white and black. Why didn't it turn purple?" And so on.

III. THINKING IN A CRITICAL MANNER

As children learn to approach situations, problems, and conditions by the scientific method, they apply critical thinking to situations that are non-scientific. The ability to think critically is fostered in the teaching of reading as well. It may be brought from the field of reading into science, or vice versa.

Several examples of teachers' leading children to think critically come to mind. Though not particularly *science* situations, these examples may help us see more clearly how children can be led into critical thought:

1. In a certain story in a reading textbook, some children planted a garden. The next day, in childlike fashion, they rushed to the garden plot to see whether the plants were coming up. Alas! The birds had been there and had scratched up and eaten the seeds. End of story. But not the end of the discussion. Had the teacher left the story at this point, the pupils would probably have gone away from the story thinking, "Those naughty birds! They should not have eaten those seeds!" "Why not?" asked the teacher. "Those birds were hungry. Don't they have the right to food they find? Aren't birds our friends? What is our responsibility for their welfare?" (A science-social-studies issue)
You can imagine the valuable discussions that ensued.
2. Pupils in a certain class found this statement in a social-studies textbook: "In twenty-one days, if the hen is patient and cares for her eggs, she will have twelve downy chicks." Critically reading this with children, the teacher, having been reared on a farm himself, helped the children discover the misleading nature of this statement—that it is quite possible that the hen will *not* get twelve chicks from twelve eggs, even though she takes good care of the eggs. For some eggs are not fertile and do not hatch, and storms, over which the poor hen has no control, may cause some of the eggs to break.
3. A textbook in social studies stated that in a big city everyone hurries and everyone walks to the right. Of course this is not absolutely true. For does everyone hurry? We don't think so. And in the many big cities we have visited, not everyone was walking to the right, though maybe everyone should have been.

Teaching children to read critically will help them think critically and give them background and support to challenge what is not factual or altogether true or correct, especially in science.

Perhaps some children are born with a talent for critical thinking, and we need only help them perfect this potential. We remember watching a certain youngster take a commercial pre-primer reading test. A picture showed a large dog standing over a doll (not on it), and a little girl watching. Opposite were three children's faces, the first showing a little girl laughing, the second a serious face, and the third a child crying. The correct face to mark, according to the test, was the crying one, for the dog was standing over the toy. The little girl taking the test marked the smiling face.

Asked why, she remarked, "My dog and I have lots of fun together! He never hurts my toys!" Her answer was correct.

IV. THE OBJECTIVE OF SCIENCE ENJOYMENT

This objective is a constant concern of all science classes. At no time in the life of the elementary-school child should teachers feel they have reached this objective and need no longer consider it. Taking our scientific heritage for granted may be one national custom we in our science activities need to eliminate.

V. PROPER USE OF SCIENCE RESOURCES

We have indicated the need for electric motors, microscopes, dry cell batteries, and the like, but you may not find these available when you begin working with children in science. Resourceful teachers and pupils will not let the lack of such equipment deter them from activities of inquiry and experimentation in their study of science. For scientific facts can be obtained and experiments and tests carried on, as has been stated earlier, with such simple equipment as string, balloons, fans, matches, cans, boxes, seeds, insects, spoons and even plain dirt. In studying air pressure, for example, the class can use a bicycle pump and a pan of water. We must recognize, too, that there are scientific values to be realized when children must first create the equipment necessary to test a scientific idea or principle. Equipment made by the children and proved adequate in its use becomes, to them, valuable equipment.

Proper use and recognition by the teacher of science resources which he may not think of as science equipment is extremely important. Children learn all the time. They will learn from the window full of plants, which may not have been put there for scientific purposes at all. If we permit the plants to wither and die or to be harmed by a hot radiator, we are teaching poor concepts of conservation and proper plant care. Even such negative precepts can be put to good use if the teacher is alert.

Speaking of live creatures in the room, we believe it wrong to permit children to rob the forest, the stream or puddle, the rabbit's or bird's nest, to bring specimens into the classroom. Bringing into the classroom a baby wild rabbit found en route to school may be in order for that day only, if study is to be made of it. Then the baby rabbit should be returned where its mother can find it; and the crayfish should be returned to its pond home, and the garter snake to its homeland. Do not permit the frightened creatures to suffer or die. This is inexcusable negligence. If such animals cannot be returned to their natural habitat, there is always the humane society.

Bringing pets to school for science purposes must be part of a well-planned activity. The danger of a cat scratching, of a diseased

bird creating a hazard to health, or of a dog biting is always present. Even the practice of experimenting nutritionally with white mice may be open to question in the elementary school.

In the use of electrical equipment in science, much care needs to be exercised by the teacher. We recommend that children never be permitted to plug in any kind of electrical equipment, not even an extension cord. One teacher had this brought home when a girl was permitted to insert a plug into the wall outlet. At the moment electric contact was made, the metal bracelet on her arm slid into contact with the metal plug. While the child, luckily, was not burned, the experience was frightening for the class.

Science resources are to be had at every hand. Wise and safe use is the watchword.

THE ROLE OF THE EXPERIMENT IN THE TEACHING OF SCIENCE

The teacher had evidently prepared well for the experiment. So pleased was she with her preparation, so confident that this was going to turn out splendidly that she invited the principal to this particular science period.

She proceeded through the experiment with care, explaining lucidly each step. The pupils were interested and attentive. But the final step, the fruition of the experiment failed. The experiment didn't work.

The teacher was embarrassed, though she should not have been. She thought she had suffered a loss of face with her pupils and her principal. The look of defeat on the teacher's face and her abrupt ending of the science lesson with, "I'm sorry, boys and girls. It worked for me last night. I'll try again tomorrow," convinced the principal that what he momentarily thought had happened, had *not* happened. For he believed at first that the teacher had purposely let the experiment fail in order to arouse the pupils' curiosity and lead them into a discussion on *why* it had failed. Teachers use this device, and it has value. Or, really failing, teachers have gone on naturally and wisely with, "Well, imagine that! It didn't work! I wonder why?" In a moment, children are on their toes trying to find a reason.

There is yet another flaw in the procedure this teacher used in this experiment. You have probably discovered it. The pupils, not the teacher, should have been performing the experiment.

Science is a doing subject, a trying-out and a finding-out subject. Science is not talked about, or merely read about. It must be experimented with and demonstrated. Experimentation is at the heart of it.

DO NOT SPOIL THE EXPERIMENT

In our opinion, teachers often misuse the science textbook as they approach an experiment by having the children first read to learn what the experiment will prove. This takes away the opportunity for the pupils

to find out for themselves and dims their curiosity and enthusiasm. Here is an example:

A class is studying about ground water and soil. The textbook contains an experiment. Usually, experiments are discussed in detail: Take these materials, do this with them, and you will see a particular result. We know how the story comes out before we begin to read it. The textbook is not at fault; the teacher may be.

A typical experiment on the action of water on soil in a textbook may read something like this:

1. Put several kinds of soil in an aquarium.
2. Now pour some water on the top.
3. You will see the water sinking. Notice how the color of the soil changes, gets darker, as it becomes wet.
4. Finally, the water will soak all the way to the bottom. What makes it stop there? You will find out that it has hit a hard surface which it cannot penetrate.

So the class first reads the experiment. They know how it's coming out. The experiment is then performed. The book was right. That's what happened; we proved the book correct.

LET'S TRY IT A BETTER WAY:

1. The discussion of ground water, rainfall, and so on is carried on *before* the textbook is read.
2. Questions about how water soaks into the ground and runs off will more than likely arise. Certainly, with teacher guidance, these conclusions will result.
3. Then the preparation for the experiment.
What happens as the water soaks into the ground?
How far does it go? What stops it?
Does the ground change color? What color does it become? Why?
Will water soak through all kinds of soil? Why do farmers cultivate soil? Why does Daddy put mulch on the roses?

THEN

How can we find out? How could we experiment right here in the room with water and soil?

AND AS THE EXPERIMENT IS READIED
What do you think will happen? Why?

AS THE EXPERIMENT UNFOLDS
What is happening?

What makes this happen?

What caused the water to stop sinking? What, *in the earth*, would be likely to cause water to stop sinking? (Children suggest all sorts of things—soil, rock compositions, and so on.) All right, let's try that experiment tomorrow. Where can we get the materials; who

will bring them? (Remember, earlier we listed *loam* as science equipment.)

AFTER THE EXPERIMENT IS CONCLUDED

What does this prove?

What changes, if any, does each of you need to make from your first guess as to what would happen?

NOW!

Shall we see what our textbook has to say about this? Let us see how the book's experiment worked out. What glows of satisfaction will be evident as the children discover that the book agrees with them. The book supports them.

FURTHER GUIDES FOR SCIENCE EXPERIMENTATION

1. Experiments and demonstrations should always have a scientific purpose. To employ gadgetry, feats of magic, entertaining phenomena, and the like in the belief that they further science aims is to mislead children.
2. Not every science concept or activity needs an accompanying experiment. It is our observation, however, that teachers are more prone to do too little experimentation rather than too much.
3. In addition to the content of a good science textbook or the school's own science outline or course of study, science needs will come from the pupils. Do not attempt, however, to answer every child's query with an experiment. Some of the experiments which would need to be done to satisfy pupils' questions may be too involved and beyond the understanding of the child or class.
4. Materials used in experimentation should be safe.
5. Have no "star" experimenters. It may be easier on the teacher to permit only the science-minded and science-skilled pupil or pupils do the experimenting, but it is not desirable. Every child should experiment. Perhaps several different children may do the same experiment, to see whether they get identical results. Some pupils can work out experiments in hobby or enrichment periods, or even at home, to demonstrate for the class.
6. As children perform experiments and give science demonstrations for their classmates, they have a need and an opportunity to practice language arts skills. When a child reports his experiment with clarity, expression, good enunciation and pronunciation, talks to all persons in the audience, and thinks on his feet, he adds immeasurably to the success and enjoyment of the experiment and to his own educational growth.
7. Do not spoil the interest, eagerness, and enjoyment children bring to science experimentation by requiring them to do busy work following each experiment. There are often, of course, desirable follow-up activities, such as keeping brief written summaries of ex-

periments, verbal and written reports, and the like. But, on the other hand, we have seen pupils required to make science notebooks and copious, verbose, and useless records which were quite meaningless and boring to the children and of little value educationally. Still popular is the requirement of a notebook, say on "Metals," the pupil cutting to shreds all the magazines and newspapers in the home, searching for and cutting out literally hundreds of pictures of articles that contain something about metal. The more enthusiastic or loyal pupils will hand in fat, fat tomes containing these pictures, and little more. We seriously question this activity. In this category, too, is a requirement of another kind of science notebook, cumulative all semester or year, in which the pupil is asked to write a composition on each science subject studied. These often are copied from another book, labored on at home under what is erroneously called homework, or transcribed verbatim from an encyclopedia. Such activity obviously is not science learning.

SCIENCE SHOULD PERMEATE YOUR CLASSROOM

We have said, "Look about you if you would teach science." Children should be able to look about their classroom at all times and see science. Seeing it, they will become curious about it and interested in it. The classroom interest should lead you and the children *outside* the classroom, to the furnace room, and to the basement, with the engineer, to learn how the school building is heated, how waste is carried away, how the school is ventilated. Follow the engineer to the master clock to see how that wonderful piece of machinery rings our bells for us. (The authors believe that the field trip is very valuable. But we have seen the teacher, not only in science but in social studies, take her children right past worthy and valuable resources in or about the building, on the way to see almost the same thing by a bus.)

Finally, out of the building into the wonderful science world outside. Take walking trips into the community to see the landscaper at work, to observe the earth-moving machine, and to talk with the driver about his work. Board the bus to the science museum, to the paint factory, or to the dairy farm.

Surround the children and have them help to surround themselves with exhibits on tables, wall, bench, from the ceiling, at the windows—all about the room. Growing plants, rocks and minerals, stuffed birds, reptiles and animals, weather charts, graphs—there is no limit. Save room, to be sure, for other exhibits, articles and displays in connection with art, social studies, language, and the other subjects. There may be insufficient room to have all these things in your room, we realize. But look everywhere! There might be an unused spot!

With proper planning, you may also have some live animals in your room, temporarily or permanently. An aquarium can be an exciting

and valuable part of your science program, if you don't spray flies in your room!

SUMMARY

Science programs are not only sequential; they are also cumulative.

As we consider the possibilities of science topics and subjects and the wealth of teaching resources, it seems impossible that the teaching of science could be other than exciting. The teacher need not possess great scientific skill and knowledge. A spirit of curiosity and a questioning attitude will carry you well along the way.

Experimentation is at the heart of science education. Through testing and questioning, many science objectives are moved into action. The world in and around the school becomes the laboratory; *why* becomes the key word.

PROBLEMS AND DISCUSSION TOPICS

1. Relate the central purpose of elementary science—to *help children discover effective tools, facts, and understandings for appreciating, enjoying, and controlling their environment*—to these essential objectives:
 - A. Historical and scientific interpretation
 - B. Appreciation
 - C. Understanding of the scientific method
 - D. Critical thinking
2. What do the suggested science activities on pages 104–105 imply about the teacher's interest and background in science? Discuss.
3. In the description of science content in this chapter, select one of the general areas, such as "Matter and Energy Are Subject to Many Changes," and draw conclusions in regard to:
 - A. The progression toward more difficult concepts from grade to grade
 - B. Methods of teaching specific concepts
 - C. Possible experiments which could be used to illustrate the concept
4. In a panel discussion, point out the merits of observation, reading, experimentation, and audio-visual materials in teaching elementary-school science.
5. Examine units of study in several subjects to find out how science teaching is related to other instructional areas.
6. How can science be taught so that there is reinforcement of purposes of conservation education?

7. Describe the role of the experiment in teaching elementary science.
 - A. Are there particular situations in which the experiment is especially valuable?
 - B. Under what conditions should it *not* be used?
 - C. What techniques may be substituted for the experiment in some classes?
8. List some "musts" for a teacher preparing a science experiment.

WHAT WOULD YOU DO?

Three weeks before school is to close for the year, you complete a most successful study and experience with your class on *Soil and Plant Growth*. The children planted flats of tomatoes, cabbages, asters, and marigolds during the unit. The plants grew very well. You had planned that the children would take the plants home and set them out in their gardens and watch them produce fruit and flowers during the summer. The children suddenly suggest, instead, the making of a school garden! (This is possible, for there is some available ground.) They get very enthusiastic and excited. What an experience this could be! Arithmetic (measuring), planning experiences, committee work—what possibilities! The children maintain that families could sign up to care for the garden, week by week. You are going to be away from the community all summer. You will not teach this group of children next year.

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CHAPTER 7

LIVING AND WORKING TOGETHER: THE SOCIAL STUDIES

WHAT IS THE SOCIAL STUDIES PROGRAM?

Simply defined, this program is a study of the social sciences which affect human beings. Broadly viewed, it includes the study of economic, political, and sociological concepts intertwined with significant historical and geographic learnings. In the elementary school, these learnings are presented at a level commensurate with the child's ability to comprehend them. This has resulted in a fairly common pattern of organization. Too, the scope and the content are pretty much the same from one area of the country to another. In a few school systems, the social sciences may be taught as separate subjects. However, research in child growth and subsequent refinement of learning principles have caused a shift in most social-studies programs to the point where there is now perhaps more integration of subject matter in the social sciences than in any other phase of today's elementary school curriculum. At present, this is the most common pattern. In fact, separate textbooks in the elementary-school subjects of history, geography, and government are seldom used.

PURPOSES IN THE SOCIAL STUDIES

The social-studies aim is basically that of providing children with knowledge and skills which will better enable them to live together more harmoniously; to provide opportunities for the study of acceptable social behavior; to give guidance in learning historical, geographical, sociological, and economic concepts which provide children with a background for understanding man as a social being; and to offer situations in school for practice in and understanding of human relationships.

In the elementary-school social studies, experiences should be those which give children a deeper understanding of ways in which people live and work together. Along with the development of further insights into social processes, related social-science facts are goals toward which the elementary teacher strives as he works with children. For example,

a fifth-grade teacher in Michigan may include the study of "Canada—Our Neighbor to the North" as a part of the social-studies program. Children would study the geography of Canada, pertinent historical facts, Canada's political divisions, natural resources, occupations of the Canadian people, and perhaps the country's cultural and educational programs. During this unit, children might work individually and in interest groups to find out answers to questions which the class members and the teacher have raised. They may read from a basic text and from several selected supplementary sources. They will probably view films and other visual aids. If they live in Southern Michigan, the class may cross the Detroit River by tunnel and make an educational visit to the city of Windsor. They may write letters to obtain information. They may report their findings as members of a group which has worked together on a common project. Other subject-matter skills may be practiced during the course of unit study: writing legibly and spelling correctly in letters requesting information; computing distances and time between Detroit and Montreal by rail, air, and water, and the use of number in other related problems; drawing pictures, constructing models, making murals, and utilizing various art media; and learning Canadian songs.

In addition to these general learning experiences, the social-studies program provides children many opportunities for growth and practice in specific skills. If you re-examine the types of curriculum organization in Chapter III, page 40, you will conclude that the most effective social-studies program results when the curriculum is organized in one of the integrated patterns. When the curriculum is organized in one of these patterns, the elementary teacher has freedom to select methods to meet individual pupil needs, to orient learning to acceptable principles of child growth and development, and to allow for learning of specific skills.

SPECIFIC SKILLS DEVELOPED IN THE SOCIAL STUDIES

COMMUNICATION SKILLS

Practice in silent reading. Use of the table of contents and the index. Improvement in word understanding and in vocabulary. Understanding content read. Spelling improvement. Practice in use of dictionary skills. Selection of main paragraph ideas and sentence meaning. Reading and interpreting charts, graphs, tables, and maps. Telling stories. Planning and discussing group projects. Discussing and agreeing upon a unit culminating activity. Composing poems, letters, and stories. Participating in a wide variety of listening experiences.

ARITHMETIC SKILLS

Counting and writing numbers. Use of and practice in problem-solving in liquid and linear measure. Weighing objects. Comparing area and size in many ways. All kinds of problems related to unit work and involving addition, subtraction, multiplication, and division. Solving problems involving money. Understanding and properly using arithmetic terms.

AESTHETIC SKILLS

Singing songs related to study units. Composing rhythms and songs. Performing folk dances. Finger painting. Drawing, clay modeling, and constructing a mural. Discussing pictures and music and learning to appreciate more fully the role of music and art in the lives of people.

In the social studies program there are provided opportunities and experiences for children to understand how history is related to geography, to follow an individual bent in solving a problem, to work together in small and in large groups, to utilize all the intellectual skills and abilities at their command, to contribute to group effort, to integrate several subject matter skills, to learn many facts at once, and to correlate total learning. The social-studies program is, indeed, concerned with the total development of the human being in a democratic society.

THE SOCIAL STUDIES AND THE CHILD

If this portion of the school curriculum is to embrace those factors pertaining to the development of the child as a socially functioning organism in our American culture, it is essential that these purposes be identified by the elementary-school teacher. The child grows in the following ways in an effective social-studies program:

1. THE CHILD DEVELOPS AN INQUIRING MIND. The content of the social-studies program is broad, yet methods employed for study are those which capitalize upon individual aptitude and interest. Since the social studies cut across subject-matter lines, there are many ways to help children want to know more about personal problems. The elementary-school teacher should be able to help children identify problems more readily in the social studies than in almost any other curricular area. As a result, here is a chance to help the child acquire a spirit of inquiry.
2. THE CHILD BECOMES SELF-DIRECTIVE; HE ASSUMES RESPONSIBILITY. Parents constantly encourage their children to become self-directive. As the child grows in ability to direct himself, we think of him as maturing, as accepting more responsibility for his own behavior. During the course of a year in any elementary classroom, there are countless experiences and activities in the social studies which can lead to growth in self-direction. The fact that a child decides *on his own* to join a particular study group, to outline one section of a group report, to build a model of the Straits of Mackinac Bridge, to write a summary of the unit, to discover how yellow fever was conquered, to direct a folk dance, to have a particular role in a culminating activity, to find out how to spell and how to use a new word encountered, or to make and interpret

a chart are a few examples of self-directive opportunities for children in the social studies.

3. **THE CHILD DEVELOPS EFFECTIVE WORK HABITS.** There is a wide variety of techniques whereby children learn how to work and learn the value of a job well done. Let's refer to our Canadian unit again. As the child seeks answers to his own and to his group's questions, there is assumed a responsibility which no one else (not even the teacher!) can impose upon him. Achievement of self-purposes, if guided properly by the teacher, results in self-established patterns and habits of work. During the course of unit work, children must evaluate and judge their progress toward purposes which they helped formulate. If a pupil is not assuming the responsibility in group effort for which he volunteered, other children are not slow in drawing this neglect to his attention. This is good. It is much more effective than constant reminders from the teacher to stick to his job. It becomes yet another incentive in the realization that work is important, that certain deadlines in any endeavor must be met, and that quality of work is important. As children are given some freedom in social-studies unit work to choose some of the things *they wish to do*, they select activities in which they stand some chance of succeeding. Working on self-chosen projects gives more opportunity for motivation. Success in any job builds a feeling of pride in effort. Motivation, pride of accomplishment, and the feeling of success are relevant factors bearing upon work habits. The social-studies program is broad enough so that there are topics, subjects, and activities for reaching all children. Directed properly, this program should help children recognize the value of *how* they work in school.

4. **THE CHILD LEARNS TO WORK CO-OPERATIVELY WITH OTHERS; HE IS COURTEOUS; HE RESPECTS OPINIONS OF OTHER PEOPLE.** The nature of the social-studies program is such that children *must* work together if group purposes are attained. This program provides opportunity to plan and to carry out projects in small groups and in the total class. Pupils readily learn that discourteous interruptions and inattentiveness impede group effort. As they work together, elect chairmen, apportion responsibility, and co-operatively appraise progress, social interaction helps them recognize that others have important contributions to make—sometimes unique contributions, which no one else in the group can make. Such a process makes a long-lasting impression upon children. A poor reader may know more about a gasoline motor than any other pupil in the group. When this child contributes his knowledge, other children will listen and be proud of him. They will respect him for his knowledge. A youngster who is ineffective in verbal or written communication may be the only pupil in class who has raised a pen of wild pheasants and released them after banding. Another may have found a motherless fawn and carried it to a state conservation officer. What

a contribution these two students can make as their group studies conservation, wildlife, or migratory birds!

5. THE CHILD PRACTICES DEMOCRATIC PROCEDURES. We have yet to review a set of objectives for education in America which omits the recognition of the value of democracy. Yet too often these become words on a sheet of paper, or they are pronouncements which we hear and soon forget. If teachers believe that democracy is fostered solely by reading about it or by listening to someone describe its meaning, then they are mistaken. Pupils will learn to know what democracy means, what it implies, and what responsibilities it carries *only when they can practice it*. In the social studies, children do get to study about the relationships of family to community, of citizens to state, of people to government. History, government, economics, and geography are the heart of the social-studies program. The role of man as he operates within his culture is the focal point in this program. When we help children study this extremely important content by placing them in situations where they must struggle to achieve through democratic processes—to learn that group work is slow work; that it is sometimes monotonous; that compromise sometimes hurts; that one doesn't always get what *he* wants in a democratic group; that although a strong autocratic leader may get the job done quickly, it must still be evaluated in the light of majority desires; and that practicing democracy is hard work—we are providing the children an opportunity to develop a functional understanding of democracy.

6. THE CHILD LEARNS TO APPRECIATE COMMUNITY AND NATION. In the social-studies program, the pupil learns about the history of his community, his state, and his nation. Before he completes his years in the elementary school, he will also study the history of foreign nations which have some direct relationship to his own. As historical facts are examined, geographic concepts are studied. A good social studies program brings home these facts vividly. Geography and history are studied in a setting that makes sense, even to first-graders. Threads of relationship between the history and the geography of his immediate community are interwoven with the history of his state and his country: this thread is stretched across national boundaries. In the social-studies curriculum, these facts are studied in a context which helps the child acquire attitudes and appreciations for the role his community and nation have played in history. It is to the credit of the social studies that these and other historical developments are given full meaning as threads of understanding are unravelled by the child.

7. THE CHILD LEARNS THAT HUMAN BEINGS ARE INTERDEPENDENT. In the social studies, pupils examine man and his society in relation to peoples' efforts to make a living, to govern a city, to operate schools, to

build highways, to perfect and control transportation and communication, to be responsible for health, welfare, and safety of citizens, and to establish a nation in a world of nations. They study man's efforts and progress as he searches for food, clothing, shelter, and happiness. As these significant problems are studied, the fact that men are interdependent is underscored.

CONTENT OF ELEMENTARY SCHOOL SOCIAL STUDIES PROGRAMS

The scope and content of the social-studies programs in the elementary school vary only slightly across the country. Many states have adopted suggested programs for the social-studies curriculum and have refined units into teaching outlines, and most teacher education institutions can provide you with copies of school-system courses of study which describe rather specifically the suggested content for the social studies. An examination of these materials reveals that in the early primary grades our schools are concerned with those social influences in the child's immediate environment. In the middle grades, there is expansion of community study to state environment, community interdependence, and the ways in which people earn a living. In grades five and six, for the most part, children study the United States and its relationship to foreign nations, with emphasis on geography and history.

Dr. Leonard S. Kenworthy,¹ in a recent article, points to another emphasis in social studies.

Today, curriculum planning is archaic, out-moded and obsolete. It is based on the assumption that children would not come into contact with the world until they were well along in elementary school. But that is a false assumption these days.

Today, young children are introduced to the world in many ways even before they start to school; and their contacts with other parts of the globe are myriad by the time they reach the middle grades.

Dr. Kenworthy's list contains ten themes for a general plan of introducing children to the world. They are:

1. The Earth as the Home of Man.
2. Two and a Half Billion Neighbors.
3. Ways of Living Around the World.
4. An Interdependent World.
5. A World of Fun and Beauty.
6. A World of Many Countries and Cultures.

¹ Leonard S. Kenworthy, "International Understandings Begin Early," *The Grade Teacher*, April, 1958, p. 44.

7. A World of Poverty and Plenty.
8. A World of Many Forms of Government.
9. A World of Many Religions and Value Systems.
10. A World of Conflict and Co-operation.

These are worthy of consideration as faculties continue to work toward social-studies programs to meet an ever-changing world. Here, however, we will list some of the areas included in many schools' social studies programs and give a summary of some common units of study in the elementary-school curriculum.

IN THE KINDERGARTEN

Included on this level are units of study emphasizing living together, family fun, helping one another, the meaning and celebration of holidays, obtaining our food, health, safety, and conservation. In most programs, these areas constitute specific unit topics: Safety, Our Seasons, Our Bird Friends, The Garden, The Farm, Our Pets, The Circus, Our Playhouse.

IN THE FIRST GRADE

This grade includes social-studies topics which are extensions of those found in the kindergarten. Common titles are these: Family Life, Our Fathers and Their Jobs, The School Family, The Farm, The Grocery Store, The Policeman, The Fireman, Safety at School, The Dairy, The Bakery, Our Holidays.

IN THE SECOND GRADE

In the second grade, there is a gradual attempt to broaden the child's understanding to include recognition of social structures in the community. Such extension may be seen in typical social-studies units found at this level: How We Get Letters; Workers Who Protect Us; Our Community Library; The City Airport; Neighbors Work Together; Our Park; Courtesy; Travel in Our State; People Who Help Us to Keep Well; and The Weather Man.

IN THE THIRD GRADE

Children's interests move from home and immediate neighborhood to wider environments. Some programs begin study on a limited basis of communities outside our nation. However, this study, for the most part, is centered around those communities which supply us with food and clothing. There is observation of differences among peoples of the world, and differences and similarities in weather, occupations, and products. A beginning is made in the task of helping children formulate some ideas about the size and form of the earth, the existence of large land and water masses, and differences in the earth's temperature at different locations. Some units studied are these: Our Community;

Building Homes in Different Countries; Raising Food; Obtaining Food from Far-away Places; Conserving Wild Life; Railroads; Boats and River Transportation; Indians; Children of Other Nations; Recreation in Our Community; Our Student Council; Fire Prevention; Keeping Well; and Wonders of the World.

IN THE FOURTH, FIFTH, AND SIXTH GRADES

In the upper elementary grades, most social-studies programs make a rather rapid but systematic extension of studies from the community to the state, to the country, to the Americas, and to the world. Historical, geographical, and sociological forces are studied. Children are helped to see relationships between these forces, especially as they affect the lives of the children. Children in these grades study climate, countries, mountains and rivers, world products, and governments. There is included the political and social development of peoples from early times down to the present. Science and medicine, communication and transportation, inventors, statesmen, and explorers are all studied. Unit topics generally found in recommended courses of study are these: Early History of Our State; Living in Our State; Importance of Our State to the Nation and to the World; Communities of Men and How They Live; Life in Other Lands; Pioneers; Early Settlers; The Westward Movement; Mines and Minerals; Mountainous Regions; Living in the Hot Lands; Life in the Cold Lands; Rivers of the United States; Important Cities of the United States; Mexico; Canada; Central America; Transportation; Living in the Air Age; Science in Our Lives; Resources of the World; The U.S. and Its Foreign Trade; World Geography; The Story of Civilization.

EMERGING DIRECTIONS OF SOCIAL-STUDIES PROGRAMS

TOWARD BROAD FIELDS OF INSTRUCTION. Social-studies programs in our elementary schools are moving rapidly away from segmented instructional organization toward broad fields of instruction in which there is direct integration between content and method.

TOWARD GREATER USE OF THE UNIT METHOD. Topical instruction is planned as a series of closely related experiences and activities, generally around a central theme. The units originate from problems for which the class members seek solutions. The unit approach is a drawing away from the textbook program.

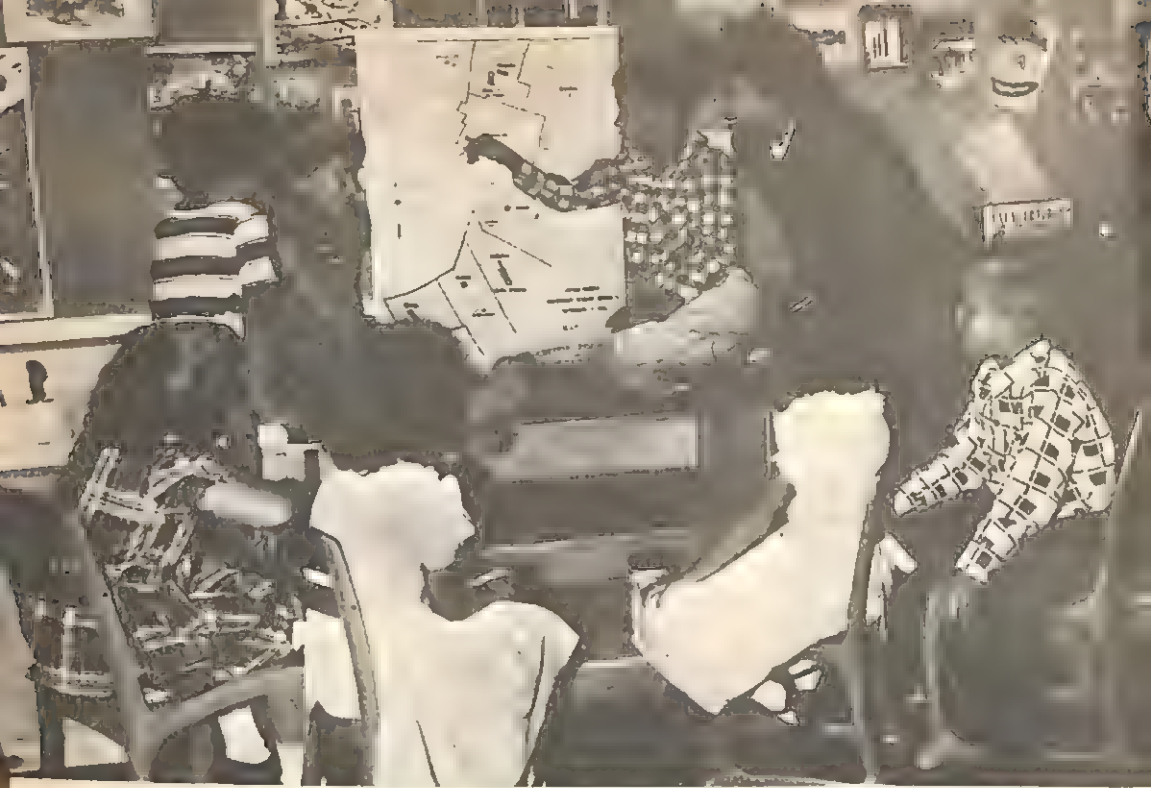
TOWARD WIDER UTILIZATION OF MANY EDUCATIONAL RESOURCES. As children and teacher search for answers to common problems in their study of man as a social organism; there must be at hand a wider variety of instructional resources. No single instructional aid can provide for the wide variation in pupil abilities and needs.



**IN THE SOCIAL STUDIES, THE CHILD LEARNS TO WORK CO-OPERATIVELY WITH OTHERS—
COMMITTEE WORK IS PROMINENT.**

TOWARD MORE DEMOCRATIC TEACHING METHODS. There is increasing understanding among teachers of the role of the pupil in the social studies, the value of group work, and the extension of opportunities for the pupil to make choices in proposing, planning, carrying forward, and appraising individual and class efforts.

TOWARD GREATER OBJECTIVITY OF STUDY. In the emerging social-studies program, pupils are helped by the teacher to state problems which they would like to solve. Pupils think through procedures and select what appears to them the best. As individuals and as a group, they are given a choice of procedures to try out, and they check and compare information obtained from several sources, judge accuracy of information, and formulate opinions on the basis of findings. They compare their ideas with those of other groups in the class, they analyze answers with the help of the teacher, and they think critically. They engage in many kinds of culminating activities. Through the social studies, children are taught to discriminate between fact and opinion. Modern programs are following procedures suggested by the scientific method of study.



CHILDREN STUDY ABOUT THE COMMUNITY.

TOWARD MORE EFFECTIVE LEARNING PRACTICES. Emerging social-studies programs are making greater use of techniques which recognize and employ effective principles of learning. In social-studies unit experiences, children work in several subject-matter areas. Knowledge in one is related to the others. Fragmentation is decreased. Motivation is better served because children are encouraged to take part in planning. Children are guided in following their aims. The program recognizes the totality of the learning process: units are made up of broad subject fields where children are afforded an opportunity to view learning in wholes rather than in small, unrelated parts. This program is adaptable to the readiness of the learner, since a variety of work experiences may be selected and followed to conclusion. The social-studies program recognizes that verbalization, while it extends learning, cannot substitute for learning experiences. There are many ways in which social concepts are gained by children. The program recognizes that no one best method of learning is appropriate for all pupils. The principle of assimilation and selectivity of the learning process is recognized and strengthened as pupils work to attain unit goals by individual means, by building new concepts upon those already learned, and by drawing conclusions founded upon individual study and research. Finally, the fact that unit instruction dominates this program gives meaning to the principle that

learning should not be a partitioning process and that rote learning is uneconomical because retention is low.

TOWARD MORE EFFECTIVE EVALUATION OF LEARNING. The emerging social-studies program gives greater recognition to the assumption that *evaluation should provide yet another means to learning*. As children give verbal reports and summaries, construct models, present panel discussions, and appraise individual and group effort, additional learning takes place. As children plan together throughout the term in unit study and as plans of work are modified, evaluation becomes a *continuous* process. This is true because changes come about as the result of new information, modified goals, or failure of original plans to move the group to its objective. This kind of day-to-day evaluation gives children much opportunity to judge their own progress. It is the most effective kind of evaluation because it constitutes process with individual subjective purpose.

THE CALIFORNIA PROPOSAL FOR 1963. The most recent trend in the social-studies program organization is from California, after a five-year study which sought the views of several thousand people in that state. Under the new plan, a child would have a social-studies program like this planned for him:

Grades 1-5: School, community, the surrounding area, California history and geography, the United States and its relations with Canada.

Grade 6: Global geography and Latin America—an over-all look at several countries and special study of one.

Grade 7: Europe.

Grade 8: United States.

Grade 9 or 10: A year's course in "Challenges to Freedom in the World: Forces in Asia, Africa, and the Soviet Union."

Grade 11: United States as a twentieth-century power.

Grade 12: First semester—All levels of government; second semester—"Problems in American Life."

The program, when approved by state and local school authorities, would be put into effect in September, 1963, and might point the way to similar changes in schools throughout the United States.

FROM THEORY TO PRACTICE

In some manner you and your pupils will live social studies every hour of every day in your classroom. Once each day, in a self-contained classroom, you will conduct, it is true, a formal class identified as "social

studies," or "social education." But, in one way or another, the matter of social studies will be with you each hour of the day. In arithmetic, in contrast, you will center arithmetic considerations generally within the arithmetic class period and an accompanying study period. Arithmetic probably will not be considered again that day. Similarly, physical education will be limited to a special period, and so it is with other subjects. But social studies, formally and informally, go on all day. That is because social studies is learning to live together. You will have social studies during science, in the reading circle, on the bus, at recess—in fact, there will be no time when you will not be a teacher of social studies, even during rest time in kindergarten. "Mrs. Smith, Johnny has his eyes open!"

The social-studies aim, we repeat, is basically that of providing children with the knowledge and skills which will better enable them to live together more harmoniously; to provide opportunities for the study of acceptable behavior; to provide children many opportunities for growth and practice in specific skills; and to give children a deeper understanding of ways in which people work and live together. All day long, you the teacher will pursue these and other social-studies aims.

It appears that teaching social studies is a difficult and challenging task, doesn't it? It is. For no subject, we suggest, requires more teacher initiative, perception, planning, study, and direction than this one. The authors know veteran, master teachers still studying and still learning how to make their social-studies classes and experiences with their pupils more dynamic and fruitful.

The beginning teacher needs to know well what the scope and content of the social-studies program are, what the basic requirements and assignments are, what materials are to be used, and what results are expected.

In the almost limitless bounds of the social studies, we urge the beginning teacher to hover safely and securely around home plate, probing more complex activities later, slowly and carefully. Do not try to branch out, to take on huge and complicated projects and activities (social-studies plays, excursions, elaborate units, or difficult correlation attempts) too soon. We have known beginning teachers who, in unbounded enthusiasm, have launched complicated projects which quickly failed because of poor preparation, poor management of pupils, and lack of those teaching skills required in this more difficult kind of direction. Such teachers attempt far too difficult, complicated, and involved projects, units, and correlations at first, perhaps believing they need to do so to make their social studies really successful.

If you go slowly, carefully, steadily, we think your social studies teaching will be off to a steadier and more promising start. When you become more skilled and your vision becomes sharper, and when you feel confident in enriching and enlarging the horizons of your program, then do so. This will not happen during the first few weeks or months. Maybe it will not happen for a year or so.

These suggestions are in no way meant to limit your enthusiasm and creativity or to suggest that your early social-studies teaching should be colorless and thwarted. Not at all. You can stay fairly close to the adopted course, text, or outline and still have an enriched course with a high level of pupil interest and participation. You can have a good time in your social-studies activities in your first year of teaching while staying very close to the skeletal framework or suggested outline. The course of study, text, or unit outlines will be your "guide." After you are safely on course then, little by little, you can and should reach out, broaden, heighten your enrichment, and increase your scope of activity.

Having said this, let's get down to the job of teaching social studies.

FROM THEORY TO PRACTICE IS MORE DIFFICULT IN SOCIAL STUDIES

The relationship of numbers, spelling, and the facts of science transfer quite easily and handily from the theoretical to the practical. In the field of social studies, applying the theoretical is a different and far more difficult matter. It is one thing to say that social studies is the study of how peoples live (or should live) together, and another thing to be partly responsible for that right and successful living together. What is right and what is successful?

In social studies, certainly, the teacher and the school must enter the field of controversy, must deal with social issues and with social evils. This becomes a little complex.

To bring social studies into the daily lives of our pupils and our people requires in a teacher an excellent control of his own emotions, prejudices, opinions, beliefs, political leanings, and the like. Bringing present social conditions and situations—life as it actually goes on, events as they happen day by day—bringing all of this into our elementary social-studies programs is difficult but very important.

It seems to us an educational tragedy, for example, to cut short the social studies for children, as in the following examples:

1. The unit had been on Mexico. Children "learned" about our neighbors to the South by learning a Mexican dance, reading stories, making pottery, Mexican murals for the bulletin board, and, in general, taking a look at the life of the Mexican. But they were not permitted to look far enough! We believe they finished the unit with a distorted, unrealistic, hodge-podge picture of this nation and its people. As in much of our past social-studies teaching about other peoples, they looked only at the colorful and dramatic; at the lovely and the nice. "Everyone is happy and well off," conclude the pupils after each unit. They did not know of the *real* Mexico, we contend.

The pupils were not confronted with the sorry plight of the Mexican itinerant fruit picker or sugar beet worker only a few miles from the very classroom where Mexico was studied. The pupils were not made aware of the many Mexicans whose condition of housing, health, education, and general welfare during their stay in our country is pitiful. Our pupils would see little colorful dancing or interesting siestas around

a weather-beaten, leaky, drafty, woefully inadequate beet worker's shack.

2. So it is often with the study of the American Indian. "Let's learn about the Navajos!" the teacher suggests. Away they go—macaroni beads, oatmeal-box tom-toms, beautiful pictures of Indian costumes, Indian songs, an Indian dance. Rip open some burlap bags and make a hogan. Study completed!

No hint to the pupils of the actual conditions existing at this time on the Navajo and other reservations. No discussion of present and future social problems of our Indian citizens or the role which this present classroom of boys and girls will or should play. No knowledge gained in the study of the inadequacy of the hogan, the economic and agricultural problems of the people, of sanitation, education, health facilities, opportunities, and so on.

Dare we, in our social studies, talk about these things? Will we be criticized as teachers? The question which seems more important is: Do we dare *not* study the lives of other peoples as they are today?

3. What do you remember about the Eskimo from your elementary-school social studies or geography and history? Did you make igloos? Children in some of today's elementary schools are still making igloos, still taught that this is the current home of the Eskimo. And our Alaskan friends chuckle.

4. How does one teach about China today? *Both* Chinas, that is? "In the elementary-school social-studies classes," we said earlier in this chapter, "experiences should be those which provide children with a deeper understanding of ways in which people live and work together." Our teaching must be accurate, realistic, and *current*, if we are to do this.

Cooking rice in the school kitchen and attempting to eat it with child-fashioned chop sticks will not help children very much in understanding the Chinese of today, wherever they may live.

ASK YOURSELF "WHY?"

You see, it *is* difficult, in social studies, to be practical. Sometimes, it may even be threatening to us. We cannot tell you how to handle all of these situations in your direction of social studies. But we think you will need more than igloos, macaroni beads, and burlap hogans.

WHY TEACH ABOUT INDIANS AT ALL?

Regardless of the topic of the social-studies unit, chapter, or subject, *the teacher* must first determine in his own mind why the subject is to be discussed and taught. Why consider the people of Japan for the next three weeks? What are we after? What skills, concepts and understandings will be gained from this study?

Answer these questions yourself . . . first! You may not continue the unit! You may alter your plans.

When you are satisfied with *your* answers, then be sure *the children*

know why they are going to study the Japanese nation and people for three weeks. The study must be made important to them. It is disturbing when we discover (and this discovery is often made!) that children are studying something "because we have to . . . because the teacher said for us to."

Children are entitled to know, in the kindergarten for example, why they are learning how a kitten gets its food. Third grade youngsters should have a reason for studying conservation. Boys and girls in the sixth grade have a right to know what purpose a book report is to serve. Not only in social studies, but in many other school activities, we so often fail to give children the reasons why they are doing what they are doing. Sometimes, we fear, the teachers do not know; or, knowing, feel no need to tell the children.

"We are going to begin to draw trees today," one teacher said, "because the art supervisor said it is time for us to learn how to draw trees." At least a reason was given, though the children never did really know why they were drawing trees. We wonder if the teacher knew.

What a wonderful (though frustrating) thing it would be for all of us in teaching if, each year, we had for pupils a *National Why Day*. On this day, pupils, in tones dulcet and in mannerly fashion, would make us give a good reason for everything we did in the classroom that day. A reason for drawing this map, for learning these state boundaries, for visiting the fire station, for building this igloo, for adding these fractions.

ASK YOURSELF SOME ADDITIONAL QUESTIONS, TOO

Children's time can be wasted and their learning stultified if the teacher fails to ask himself whether the activities in which he has directed children are really contributing toward the realization of well-defined and worthy aims.

Consider mapwork, for example. Children, individually and in committees, have spent many hours constructing and painting salt maps, gathering materials, making, messing, molding mountains, depressing valleys, waiting for the drying, and so on. Why?

"By making the map by hand, the children will learn the configuration of South America better; and its physical features," a teacher might answer. Not so. Time, energy, and material are wasted, we contend. But more to be regretted, the children probably will have gained incorrect and distorted concepts of the shape and features of our South American continent. Children are incapable of creating or recreating correctly and accurately a map of South America.

Are the Ozark Mountains higher than the mighty Rockies? Sure they are! Just look at one of these pupil-made salt maps!

NOT MAKE A SALT MAP? WHAT THEN?

Think of the long way around a teacher takes, via the salt map construction method, to reach one aim—understanding the physical features of a country—only to develop, at last, the wrong concepts! A better and

wiser way, we believe, to bring the configuration and physical features of South America into focus for the pupils would be this: Open the textbook to a good physical map, or use a wall map, and make a study of it. Project a good map by opaque projector, on the wall, where it can be seen by all.

Lest we dampen any possible salt-map inclinations you may have, let us say this: You may have some good reasons for asking pupils to make a salt map. Salt maps, possibly, have some value. But if you plan to have children make them, check your aims against your methods before sending out for the salt!

DRAW THE MAP OF THE UNITED STATES!

We remember, as elementary-school pupils, having to draw a 9 by 12-inch map of the United States, free hand, and then put in all the states, mountains, rivers, lakes, and capital cities. Finally, we had to paint the map. We are sure we were never told just why we had to do all this. Possibly it was to increase our art skills. But to this day, we have difficulty remembering that New Jersey is larger than Rhode Island! On the map *we* drew, New Jersey was the smallest state in the union; that's the way it came out! We learned what we drew and painted or made out of salt.

Why have children draw or even trace maps when we have such good maps in our textbooks, reference books, and on the wall? Available now are small, inexpensive desk maps, bought by the package, which are accurate and helpful.

We doubt that we would ask children to make a copy of "The Landing of the Pilgrims" in order that they would see it more clearly. And asking them to *paint* it would seem a sacrilege.

You might have a reason for having children draw a map. Be sure that it is a good one; and then tell it to the children. Or accept *their* good purpose for such an activity.

TEACHING CHILDREN TO WORK IN COMMITTEES

From kindergarten through the sixth grade, pupils will be working in and on committees. America has become a committee nation. To solve almost any problem, a committee is appointed. Americans have poked much fun at this emphasis on committees. Some committees, both on the adult scene and in our schools, have accomplished little, but the contrary, we believe, is more often the case. We are convinced that both the *process* and the *product* of committee work are valuable and that, therefore, we must help our children to become effective in such work and to use the committee idea to solve certain kinds of problems and to accomplish certain kinds of tasks. (Of course, as we teach a pupil to work successfully in the group and for the success of the group, we need to continue helping him be successful working *alone* and for his own interest.)

Organizing, directing, and evaluating pupil committee work and committee experiences are an important part of the job of the teacher of social studies. The introduction of pupil participation in committees into the elementary school program has been a positive force in uprooting the teach-and-preach, the give-back-what-I-say recitation brand of teaching once so prevalent. While teachers have committed sins in the name of committee work, we strongly believe that the committee instrument, thoroughly understood and properly used, is a good instrument, especially in the social-studies program.

But it is not easy to use. This is one of the areas we suggest you move into cautiously and thoughtfully. To help you, we list some suggestions.

GUIDE POSTS FOR COMMITTEE WORK

1. Make a careful evaluation of the committee experiences and committee knowledge of the class and pupils' knowledge and understanding of the committee process. Don't assume that the children have all reached the same level of understanding of group work.
2. Teach what the committee is and what it does. Move into it *slowly*, *simply*, and *moderately*. Before moving into more complex forms of committee work, give the children many experiences in easy group action and decision.
3. What is a committee? For our use in this chapter, a committee is a group of two or more pupils (though there is, of course, the committee-of-one idea that you should teach and use) who work together to solve a problem or accomplish a task that can be solved only by co-operative action or can be solved or done *quicker* or *better* by committee action. Each member has a responsibility and makes a contribution which, when added to that of others, usually brings about success or completion.

A committee has a clear purpose.

A committee has organization, and assigned or volunteered responsibilities for each member.

It usually has a chairman or leader.

A committee disciplines itself (though the teacher has to step in at times) in behavior, use of time, resources, and materials.

A committee organizes its findings in some fashion for use and presentation.

A committee evaluates the job it has done.

"POEMS OF AUTUMN": AN EXAMPLE OF FIRST STEPS IN COMMITTEE WORK

Here an example of committee work is discussed step by step, from start to successful conclusion. We have not indicated the grade level of the class. The process discussed here is applicable to most grade levels.

The class had enjoyed reading and composing poems about autumn. The teacher's aim was twofold: (1) enjoyment of poetry and, (2) using

this medium to teach simple committee work. Consequently, it was not difficult for her to motivate the class to prepare a little program of "Poems of Autumn" to present to some of the other classes.

- STEP ONE:** The need for committee work arose. The children were ready for the concept. "In this way," the teacher said, after explaining the work of committees, "we could have such a program. By the work of committees, this could be accomplished."
- Through the teacher's leadership and suggestion, using pupil suggestions, *five* committees of five members each (total class enrollment, 25) were set up and named: "Poems About Nature's Color," "Animals Get Ready for Winter," and so on.
- STEP TWO:** The very first meeting. Aim: to choose a chairman. The teacher had each group meet separately and helped them choose their chairman; teacher and pupils talked about what a chairman does and the qualities he should have or needs to develop. This meeting lasted about ten minutes.
- STEP THREE:** Second meetings of all committees at the *same time*. The teacher was careful to see that the groups had definite purposes for the meeting and had stated goals. They were to name poems about their particular topic and to indicate where to locate them. Finally, an assignment was made. Each one was to come to the next meeting with poems on the subject.
- Elapsed time: 10 minutes. The teacher was careful that committees recognize when goals were reached. She did not let the committees disintegrate because there was nothing more to do.
- Following the meetings, the teacher had a brief evaluation period. "Did all groups accomplish their purpose? Any problems? Any comments on individual members' conduct or co-operation?" "Did each group finish in the time given? Why or why not?" "If unsuccessful, why?"
- "Harold acted funny!"
- "We couldn't stop laughing."
- "Everyone talked at once."
- STEP FOUR:** Meeting Number Three—time: from 15 to 30 minutes. The aims of this meeting—decided before the meeting, of course—were:
- hearing individual reports of poems
 - evaluating poems for appropriateness
- Again, all-class, teacher-conducted evaluation. If some were not successful, they went back—and succeeded, after discovering why the first attempt failed.
- STEP FIVE:** Meeting Number Four. Objective: to select *five* poems, one for each child in each committee. Now the real

work began. Time: Time varied. (The teacher will have to determine the amount of time needed from here on.) Evaluation.

- STEP SIX: Next meeting. Objectives: (arrived at by pupils, with teacher direction) to decide how poems were to be presented—to be read, memorized, presented in choric verse, and so on. The teacher made sure *all* had a part in this presentation, though universal participation is not necessary in every committee activity.
- STEP SEVEN: Subsequent committee meetings as teacher saw necessary, leading into total room "rehearsals" to refine the presentation.
- STEP EIGHT: Present the program.
- STEP NINE: Evaluate the whole group process.

If you will proceed in this manner, you should find committee work valuable for children. You will avoid some of the travesties many have observed where the whole process and activity becomes a farce and the teacher a nervous wreck. Committee work can be chaotic, but it also can make a valuable contribution to activities in the classroom and the school, and to the education of children.

THE UNIT IN SOCIAL STUDIES

Before you receive your teaching certificate, we feel sure you will be well acquainted with the unit method in social studies. You may have taught or will teach a unit in your practice teaching. Finding sample units in social studies is a very easy matter, and so we have not included such a sample in this book. Instead, we have included something *about* unit teaching that may aid you in making your social studies units more successful. The part of the chapter that follows has been prepared by one who has taught many social studies units and has helped other teachers with this work."

TEACHING THE SOCIAL-STUDIES UNIT

INTRODUCING THE UNIT

We assume that you are interested in learning about unit instruction as one method of teaching social studies. Let us first, then, offer this simple definition of a social-studies unit—it is a particular body of knowledge organized around a theme. Themes might be: *Conserving Our Natural Resources*, *Communication*, or *Farming In The United States*.

The following themes show how the topics may vary from the early

" Majorie Harger, Assistant Principal, Monteith School, Grosse Pointe, Mich. "

grades on through the elementary school: *Animal Friends* (kindergarten); *Our Homes* (first grade); *Community Helpers* (second grade); *Transportation* (third grade); *A Study of Mediterranean Lands* (fourth grade); *Our Own State* (fifth grade); *Life in Western Europe* (sixth grade).

The unit material and activities are organized and planned to teach pupils certain social understandings. But equally important are the reading study skills, in which pupils get practice and eventual mastery during social-studies unit work.

There are many sources of social-studies units: textbooks, unit guides prepared by school systems, the United States Office of Education, and encyclopedia companies. Some industries also offer unit guides as educational services.

A SUGGESTED TEACHING PATTERN

As you examine units you will note variations in the handling of the material. However, you will find a teaching pattern similar to the following in most units: statement of purpose; suggested approaches to the study to arouse the pupils' interest; insights into living to be understood; procedures for carrying on activities and study skills; suggested culminating activities; and suggestions for pupil-teacher evaluation. Appropriate supplementary books, references, and audio-visual materials are usually listed.

TEACHER PREPARATION FOR THE UNIT

First of all, get your own creative machinery into motion by reading the entire unit yourself. Get a feeling for content: for the skills to be taught and for the social understandings you want to emphasize. Your unit can be the most creative activity you direct all day, especially when you have a feeling for and a complete understanding of the material yourself.

Be enthusiastic. Go along with your pupils' interests if they are worthwhile ones. Your pupils will identify with you and your enthusiasm. Once, during a social-studies unit on *Beauty*, Charles and Mary Lamb's *Tales from Shakespeare* was read to the pupils. Months later a sixth-grade boy reported that he had heard on the radio that interest in Shakespeare would die out if people didn't do something about it. His background and that of the others in the class gave impetus to re-writing *The Tempest* in children's language. The production, we are sure, has not been forgotten by any pupils of that group.

Your goals, of course, are related to life itself: to giving pupils concepts of the ways people have co-operated to live together—whether it be how to build homes or how to get along together after the homes are built; whether it be how man has learned to extract nature's resources or how he must learn to use the resources wisely. The goals should become a part of a pupil's understanding of our democratic way of life, as well as the histories, developments, and ways of life of peo-

ples around the earth. Each unit from the kindergarten on should have continuity of learning and understandings.

Throughout the year, opportunities should be provided for reports on and references to earlier unit work. We are reminded at this point of something we observed on a beach in Florida. A mother said to her nine-year-old son, "Don't you want to gather some of these shells to take back to your class?" He replied, "Oh, no, we finished that study two months ago." Do not neglect to enlarge on earlier unit work when appropriate.

Through each unit a pupil should feel that he has traveled another avenue of understanding. This is not one that stops at the end of the road—culmination, dead end. Instead, it is one whose branches of interest are increased for never-ending future learning.

KNOW YOUR PUPILS' BACKGROUNDS

It is necessary that you understand your pupils' backgrounds. This will help you determine procedures. For example, if you are teaching a group of children from a high socio-economic background, their travel experience may add to their motivation for giving extra reports. They may have taken a trip to Washington, D.C. Others, not having had this experience, may be motivated (and possibly to even greater self-initiated learnings) through films or stories about illustrious Americans.

STRESS READING-STUDY SKILLS

Reading is the backbone of the social-studies unit, particularly from third grade on. All of the study skills emphasized in social studies, in unit work, depend on reading.

These reading-study skills must become a part of the pupil's learning equipment. Locating and using information for understanding history and geography can be appreciated for the interpretation to life it gives. Some children get their *first real interest in reading* through informational reading. We simply can't dictate reading tastes and say that all children must love stories or poetry. Some children develop a taste for informational reading, too.

The spirit with which you examine and display any assortment of new books or materials for a new unit will carry over directly to your pupils. You should peruse them first. Then show your pupils that you are delighted with the beautiful array and discuss what these books can offer.

If you are an upper-grade teacher, your allocation of study skills will call for pupils to use dictionaries, encyclopedias, the atlas, and the almanac. Dictionaries and encyclopedias today make available outstanding guides to learning. Use them.

A GOOD TEXTBOOK IS AN ASSET

In order to learn good step-by-step methods of teaching various types of study skills, such as classifying, outlining, using an index, or reading

graphs, find one of the good textbook series on teaching skills in social studies. As you use these, you will gain skill in planning your own lessons on reading-study skills.

Use the guidebooks and study aids that go along with your teaching materials. Read them, think about them, reflect on them. We have heard teachers say, "I don't know how to teach the use of the globe." Publishers of such equipment usually have beautifully created handbooks written by skilled people. Once acquainted with this material, teachers say, "Now I understand it myself and I can teach it to my children."

MAKE UNIT TEACHING A HOBBY

We suggest that social studies may become one of your hobbies. You will become a collector, on the alert whether it be in looking at the little magazine you pick up at a super market or an article in a library. You may become interested in lobster-catching, products of your state, new developments in transportation, or the history of democracy.

This hobby can be a good start toward bringing your pupils in. Secure some large envelopes for the material you collect. Let pupils arrange these alphabetically in a file box or file drawer. Making and keeping a usable index can be their job, too. It's a great stimulus to the pupils' hunting in papers and magazines for things to add to the file. You will keep this an active, current file from which children may want to draw as they report on a topic. For example: if you studied *Transportation* in September, you will probably appoint committees from month to month to report current information to the class. Pupils may want to refer to the classroom file, as well as to report on new materials from newspapers, magazines, or supplementary books.

Keep a log of your entire activities for each unit. It is a running account of instruction during the unit. It will include samples of activities, study skills introduced and those reviewed, and suggestions for future needs. Watch your professionalism and interest grow from unit to unit.

You can read book after book and outline after outline about unit teaching, but the responsibility for a good lesson taught and the step-by-step understanding by your pupils still rests with you. Don't let children come away from a study saying, "Illinois is a large city in Chicago," or "I don't know whether Pearl Harbor is a bay or a continent."

MATERIALS IN UNIT TEACHING

There is a wide assortment of materials available for unit teaching. In addition to your own school sources, annotated lists of films and other audio-visual aids are available through public libraries, state departments of public instruction, from universities, and from encyclopedia companies and commercial audio-visual services. Often, large insurance companies, manufacturers of cereal or other foods, dairies, and health

associations have listings of audio-visual materials you can borrow or have. Sets of beautifully colored pictures, pamphlets, and booklets prepared to go along with popular units of study are usually available free of charge.

Do examine the commercial material to judge how suitable it is for the children who will be expected to use it. We have seen a third grader look off into space and then slowly discard a booklet concerned with the unit topic. The cover, the pictures, and the size of print were just right for him, but the vocabulary was too difficult. On the other-hand, it works out well to let the more advanced readers inspect, peruse, and choose their material. Encourage them to reach out, to go for materials that require keeping a dictionary at hand, as well as making trips to the unabridged dictionary. We recall a free booklet about atomic energy which the teacher obtained from a chemical company. It became "dog-eared" at the corners from constant use by the most advanced sixth-grade boys. It was the chief reference for one boy's preparation of a contribution to a culmination activity in a science unit.

OTHER MATERIALS OF INSTRUCTION

Keep on the lookout in professional journals and trade magazines for free or inexpensive materials. Have your librarian help you locate a guide to free or inexpensive teaching materials.

You'll want to start your own library of copies of handbooks or pamphlets on teaching the use of the encyclopedia, dictionary, atlas or other skills. Plan to save copies of periodicals and newspapers. Bring in a copy of *The New York Times* to your sixth-grade class. Periodicals such as *Time*, *Newsweek*, and others give many later elementary school children the import and impact of current events. Inspect sample copies of the weekly news magazines published for elementary-school use. You may want your pupils to subscribe to one of them.

And don't forget your scissors! You will use them to trim for mounting the excellent pictures you'll find in magazines. Sometimes companies advertise with series of prints related to the development of power, electricity, or other topics. Watch for those. You may find pictures that you will keep for future discussions when your second-grade children get to the unit on home life or your third-grade children to the unit on clothing.

Some encyclopedia companies offer excellent lessons, accompanied by teachers' guides for study. The preparation of the lessons allows you to use them for pupils with a wide range of skills and abilities. There is material for the gifted and for others, too.

Keep on the mailing list of publishers of elementary and college textbook series. You'll get suggestions and ideas to clip for reference.

Good informational reading is available today for all reading levels. By choosing sets of supplementary books at various grade levels, you can guide pupils to their individual reading levels. There are social-

studies books which have an independent reading level of grade three and an interest level two years higher. For the advanced reader, many are available.

A SUGGESTED TEACHING PLAN FOR A UNIT

Following are the important divisions of a teaching plan for a social-studies unit:

1. **THE STATEMENT OF PURPOSE.** This describes briefly the theme of the material in the unit. It states the particular geographic, historical, and social significance of the unit for the pupils. The emphasis on any of those areas results from the nature of the material. The purpose also lists the important understandings the pupils are to gain from the study.

2. **THE APPROACH.** This indicates how the teacher will arouse interest in the study. He may arouse interest by showing a film, a filmstrip, or slides, or by reading a story or describing an exhibit of books and materials. Perhaps he will invite someone from the community to introduce the study, or provide a plan for an impromptu panel discussion by the pupils. And there are other approaches.

3. **THE OVERVIEW.** This provides pupils an opportunity to make a survey or overview of the basic material in the unit. The overview gives a sense of wholeness, a feeling of general understanding of the unit. It involves an inspection and discussion of the unit title, chapter headings, and pictures, and, most importantly, a rapid reading and skimming of the unit in the basic textbook or the basic reading material.

4. **THE RE-STUDY.** This requires a re-reading of the basic unit material for thorough comprehension. The textbook and the teacher provide activities for pupils to assimilate, organize, and remember what they read:

The re-study provides opportunities for teaching appropriate study skills in reading and serves as the springboard for research and activities utilizing reference materials and supplementary books.

5. **INDIVIDUAL AND GROUP EXPERIENCES.** These are unit-related activities which give pupils opportunity to adapt what they know about reading to sources such as newspapers, an almanac, charts, graphs, or the encyclopedia. Along with the re-study and following it, pupils use reference materials and supplementary books. The individual or group experiences may be such activities as writing reports, giving oral reports, making graphs, making maps, making notebooks, or producing a dramatization based on some part of the study.

6. **THE CULMINATION.** This experience allows for a recapitulation by the pupils of the main understandings gained from the study. It may be

as simple as having pupils draw pictures of ideas that were interesting to them and telling the class about them. It may be the presentation of a play, creative stories, or legends. It may be the presentation of work completed by individuals or committees. It may be a demonstration of projects completed: time lines, maps, graphs, notebooks or collections. Not every unit must end with a play or a program; the unit may be completed with the last topic studied.

The culmination activity may be shared by the class alone, with another class, with several classes, or with parents.

7. **EVALUATION.** The evaluative process goes on continuously throughout the unit as the teacher observes his pupils' reactions and learning. He works with pupils in developing some evaluation tools of their own. For example, after giving a report a pupil may want to ask the group such questions as "Did I explain the new words to clarify the correct meanings?" or "Did I present my materials so that you understood them?"

Objective evidence of the achievement of unit purposes comes also through informal and formal tests.

CHARTING A SOUND COURSE FOR HANDLING SOME ROUGH SPOTS

1. **VOCABULARY DIFFICULTIES.** Beginning in the third grade, pupils are confronted with more complex vocabulary problems. This is particularly true in social-studies work. Many words are more abstract than the words pupils have met before. (Random examples: *framework*, *suburb*, and *elevated railway*.) The teacher, therefore, must give pupils varied experiences so that they will understand the meanings of new words.

We suggest the following steps in teaching new words:

- a. List the new words from the unit.
- b. Each day present the new words included in the reading for that day.
- c. Use the words in as many ways as possible. Encourage pupils to add suggestions.
- d. Show pictures or illustrations. These are invaluable aids to furthering understanding.
- e. Encourage the children to make sentences using the words in various contexts.
- f. Evaluate learning with the pupils.

Clearing away vocabulary difficulties before basic reading is a widely approved practice in teaching reading. Do not consider social-studies unit teaching apart from the teaching of reading.

2. **THE OVERVIEW.** The overviewing will probably take three or four days, depending on the grade and the length and nature of the unit ma-

terial. For example, a fourth-grade class with a unit of twenty-four pages divided into four chapters may spend four days in overviewing. Regardless of the total amount covered by individual pupils during the rapid reading, a new chapter should be begun each day.

By learning good overview skills, every teacher can avoid the pitfall of beginning a unit by slow, meaningless oral-reading periods. By following good overview techniques, he can avoid plunging pupils into study of particular points before they have any general understanding of the unit.

In beginning any reading, we should ask pupils first to read the selection or unit *silently* so that they can absorb the general meaning. We want them to have a general impression before proceeding to lessons involving thorough comprehension. In approaching a new social-studies unit we should follow the same procedure.

Clear up vocabulary difficulties with presentation of new difficult words at the beginning of the overviewing.

PROCEDURES FOR THE OVERVIEW. The following procedures have worked successfully for teachers of grades three through six. Some adjustment in time limits should be made for rapid reading, or alterations in other procedures should be made according to the age of the pupils and the nature and difficulty of the material to be read.

A. THE NATURE OF THE OVERVIEW. Let the pupils know what getting an overview in reading is. They are to get a general idea of the content: Compare it to taking an airplane ride and getting a bird's-eye view of the countryside. What are they going to see? What are they going to discover?

B. STEPS IN EXAMINING THE ENTIRE UNIT. What is the title of our new unit? What does this title tell us? Look at the table of contents. How many chapters are there? What are the titles about? Skim to find chapter titles and sub-titles. What are they about? How many pages are included in the entire unit? Study and discuss the pictures throughout the unit. Look at the index to see if you can find the title of the new unit.

C. THE TIME FOR RAPID READING. Suggest a fifteen-minute period as rapid reading for the first day and each day to follow. The teacher should suggest to the pupils that they read as fast as they can comfortably. Set the reading purpose: to get a general impression. Encourage pupils to be aware of how much they read during the allotted time. While the entire class will not complete the reading, checking on time and materials covered serves as a stimulus to growth.

Move among the children as they read. Show your interest in what they are doing. Ask them questions. Listen to what they want to tell you. This will be one help in finding out what skills you need to emphasize

as you get into the re-reading. After the overview give children a chance to get up and talk about the things they have been finding out: hard words they know, new ideas and interests, ideas for a picture, map information, and the like.

D. TIME FOR SKIMMING. Set another five minutes for pupils to skim for specific things, such as *Words I Want to Talk About*, *Ideas I Want to Explain*, *Pictures I Want to Talk About*, *Things I Want to Learn More About*. Put these titles on the board for the pupils to use as discussion guides.

At times you may want to give pupils practice in skimming for specific purposes, such as finding particular words or phrases, finding a sentence that gives specific information, finding paragraphs that give specific information.

Keep a record of pupil interests and particular skills and concepts you need to emphasize.

Before you begin the overview with the class, you may want to demonstrate how to read rapidly or how to skim. Remember, however, that reading rapidly will call forth a wide range of reading rates in most groups.*As for skimming, that's something to which most pupils are introduced before the end of the second grade. Each teacher thereafter is responsible for giving pupils practice in this skill.

3. MAINTAINING READING-STUDY SKILLS. And now to another possible rough spot. Don't forsake a skill once it has been introduced. Children are introduced to the table of contents in grade one, but it is not until third or fourth grade that the majority have mastered it. Of course this mastery comes with your including its use whenever appropriate from the first grade on.

It is important for you to be familiar with the reading-study skills of your grade and with those before and after it. The part that most children have learned how to use the symbols of a map legend by grade five doesn't mean we forget about it—all the more reason for maintaining its use as an effective tool.

Keep reminding children of the reasons for learning to use these tools: *they are a means to discovery*. Mastery in the use of these skills is the means to historical, geographic and economic information. These in turn help pupils to understand people and the world near and far. Give questions that cause children to *think*: to form sound generalizations.

4. USING A GROUP OUTLINE FOR REPORTING FROM READING. It is difficult to get pupils into the practice of good note-taking and report planning. Your pupils will thank you later on if you have launched them properly in these skills.

When children are planning reports from their reading, many teach-

ers find that a group outline is an effective guide. This is one of the best methods of teaching children to take notes rather than resorting to the practice of copying material.

One fifth-grade class developed the following outline:

PLANNING A REPORT FROM YOUR READING

- I. Choose a topic you want to know more about.
- II. Plan to limit your topic to
 - A. A person.
 - B. A chapter.
 - C. One specific topic.
- III. After reading, write five questions that you are going to answer as you give your report orally.
- IV. Write the answers to these questions in your own words.
- V. Other important things to do:
 - A. Understand material.
 - B. Show pictures.
 - C. Make illustrations on the blackboard.
 - D. Write the hard words on the board. Explain their meanings.
 - E. Show the class the book or material you used for making your report.

SOME CONCLUDING THOUGHTS

So many teachers (even veterans) have been frightened by such terms as *correlate* and *integrate* in connection with social studies that a comment about them seems in order. When creative writing, arithmetic, art, or music fit into the unit naturally and appropriately, make use of them. In those settings, *correlate* and *integrate* are useful terms. Otherwise, forget these terms. They will only confuse you. You might even find yourself wasting your pupils' time in building a Dutch village and writing Dutch songs when the understanding of and appreciation for a foreign land might have come about meaningfully through reading, report giving, and map study.

We have tried to show you how one can get pupils into a unit with ease and interest. We have aimed to stress the importance of reading-study skills well taught. We have attempted to convey the feeling that when pupils leave a unit, they are not "ended with it."

SUMMARY

Social studies were formerly fragmented into separate subjects of history, geography, civics, and government. Today these subjects are fused into one subject—social studies. In this plan, as the children study the geography of a people, they also study the history, economy,

culture, government, and problems of that people. The country and its people come to life as they exist in today's complex world.

In social studies the *unit* method of teaching is quite common. Out of such a study will come experiences in other curricular areas. Music, language arts, science, art—these are fused into many aspects of the social-studies program.

Use of the *committee* is widespread in Composite School's programs in social studies. Teacher understanding of and skill in the committee concept is necessary.

PROBLEMS AND DISCUSSION TOPICS

1. Why are social-studies concepts perhaps more highly integrated into the total elementary-school curriculum than are other subjects?
2. What situations can you suggest where the social studies provide the main vehicle for teaching and appraising human relationships in the school?
3. Discuss ways in which pupil participation may be secured in social-studies unit teaching. In other words, *how* does the teacher proceed to involve pupils in social studies? Can the techniques which you have suggested be applied to other study areas?
4. Learning the value of co-operative committee work is an objective of education. If you are teaching fourth-grade at Composite School, examine and evaluate proposed methods and steps for implementing group work by your pupils. In what class situations is committee work desirable? How does the teacher go about getting pupils to work effectively in groups? What are some danger signals for which the teacher must be alert? How can the teacher determine if purposes of committee work are being attained?
5. One significant way in which the pupil grows in the social studies program is that he becomes self-directive; he assumes responsibility. Study the last part of this chapter where the unit in social studies is described and then discuss these questions:
 - A. How is the preparation made by the teacher for unit teaching directly related to the purpose of the development of pupil responsibility?
 - B. How can the teacher promote self-direction among pupils in (1) obtaining teaching materials? (2) the approach activities of unit study? (3) individual and group experiences? (4) vocabulary improvement? (5) rapid reading? (6) note-taking? (7) culminating activities?
6. Examine carefully the different steps in unit teaching. Can you tell how *transition* is made smoothly from one step to the next in

good unit teaching? Should each unit contain the same general steps? Defend your answers.

WHAT WOULD YOU DO?

In connection with a fifth-grade study of the government in your state and with a transportation unit taught earlier, you plan a train trip to the state capital. Your principal approves the trip. The children will have to pay their own expenses, which are modest. But three children just cannot afford the cost. The parents of three other children object to this kind of experience and will not let their children go.

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CHAPTER 8

ART EXPERIENCES IN THE ELEMENTARY SCHOOL

Since the most appropriate organization of the elementary-school curriculum is that which makes possible functional interrelationship in subject matter, you will probably find that you are responsible for art education in your classroom. Before you are able to make art an integrated part of your teaching, you must understand what art education is and the role which art plays in the lives of children. Then you must have the proficiency to make art an integral part of education.

WHAT IS ART EDUCATION?

In reality, *art education is the development of the aesthetic nature of a person.* Art education fosters the growth of aesthetics and the development of creativity in the child. Whatever happens to the child in the home, in school, in his total environment to reinforce and establish an appreciation for and creative ability in aesthetics can be defined as art education.

ART EDUCATION AND LEARNING

Art is a subject which is readily adapted to basic learning principles. Projects and activities can be selected to meet different pupil needs; the subject is easily integrated with other curricular areas. Art enhances interest and learning. It is fun; children enjoy it. In addition to its intrinsic value, art serves the important function of contributing pleasure to the learning in many other subjects.

ART AND EDUCATIONAL OBJECTIVES

The educational philosophy in today's elementary school must be based upon sound principles if the curriculum is to be effective. So must *each subject area* have a solid psychological and philosophical foundation to be included as a part of the total curriculum. If we examine this foundation, we can see the importance of art.



ART EDUCATION RESULTS IN PROJECTS THAT CAN BE SEEN, FELT, HANDLED, AND TOUCHED.

EDUCATIONAL OBJECTIVES

- 1. The educational program should provide a balance of mental and physical activities.**
- 2. The educational program should provide opportunity for a variety of means of self-expression.**
- 3. The educational program should provide for tangible experiences.**

CONTRIBUTION OF ART

- 1. In art, children have the opportunity to combine activities of both physical and mental nature. The art program provides a natural outlet through which teachers may realize this goal.**
- 2. Art helps teachers meet this objective, since drawing, painting, sketching, and constructing are as much expressive outlets as are speaking, acting, and writing. Art provides a curricular balance in self-expression, for many children perform at a higher level through this medium than through other forms of expression.**
- 3. Art education results in projects that can be seen, felt, handled, and touched. Education is the result of many kinds of perceptions, and art activities are, indeed, tangible.**

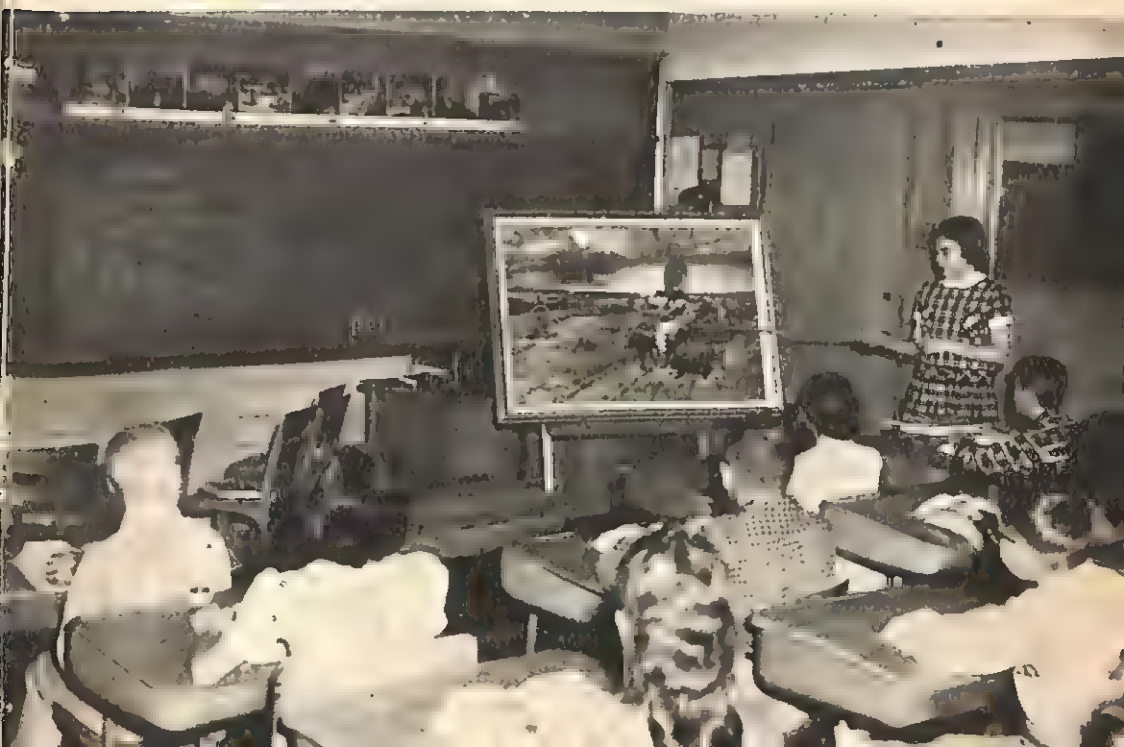
4. The educational program should provide opportunities for children to judge their work critically.
5. The educational program should provide experiences which help children develop appreciation and emotions.
6. The educational program should provide opportunity for children to develop an awareness and a sensitivity to their environment.
7. The educational program should provide opportunity for children to work together and to share ideas.
4. Art instruction results in concrete products by pupils. Children have ample opportunity to view their own creations, to compare them with past performances and with the work of classmates. Assuming appropriate instruction, pupils can develop ability to judge their own progress in art.
5. Art has an important role in helping teachers to meet this educational objective. Americans are criticized for teaching children that the materialistic and the economic is much more important than the cultural and the aesthetic. Art provides one medium through which we can teach children the importance of appreciation and emotions.
6. Art does not assume this role alone; there are several curricular avenues the teacher and the pupils travel in reaching this goal. However, art is the main highway to its attainment. For example, through the study in fifth grade of a great masterpiece of art, children have excellent opportunity to become aware of the artist's efforts to express a theme or an idea in color and form. Through art study, the child's sensitivity and his ability to distinguish between good and poor is sharpened. The possibilities for understanding and growth in sensitivity are broad in art.
7. Pupils work together on many art projects in today's elementary school. Common art projects must be preceded by the sharing of ideas on the purpose of the activity, how the goal is to be reached, the assigning of responsibility, the carrying out of the work, and finally, appraisal of group efforts.

PHILOSOPHY OF ART INSTRUCTION

Inside the classroom, the kind and quality of art instruction depends on the individual teacher. This is true even though there exists a suggested curriculum guide in the school system and perhaps an art consultant to help the teachers. There are several significant factors which shape the teacher's philosophy of art instruction. In some classes, the teacher unfortunately looks upon art as a program of skills to be developed primarily through imitation. This philosophy, we feel, is fast disappearing; teachers today recognize that art philosophically assumes these new roles:

ART IS CREATIVITY. As teachers, you must encourage children to be themselves in art expression. You must believe that all normal children can create, and you should work with them so that they recognize your faith in their creative ability. Children must be given freedom to express their ideas in their own way. This is in keeping with the recognition of individual differences. The teacher's job is to build upon these differences in art. Remember that conformity and "camera" work have no place in helping children to be creative.

ART IS ALSO APPRECIATION.



ART IS BEAUTY. Appreciation of the beautiful needs greater emphasis in the elementary-school program than this philosophical value receives in practice. Take time to discuss with children those things in life that are beautiful. Examine *why* they are beautiful. Provide time and guidance for analysis and reflection.

ART IS A FORM OF COMMUNICATION. Artistic creations say something to us. What is a beautiful picture, an extraordinary landscape, a unique design, or a wild seascape communicating to us? Let children have time in class to think about the artist's message. Help them appreciate *how* the painter communicates. Make use of children's art in this way so that the pupil product has a deeper meaning than mere crayon on paper. Art as communication must be studied to be understood. As the teacher, helping boys and girls to this realization is your obligation.

ART IS ENTERTAINMENT. Children enjoy art activities in today's elementary school. Demanding imitation in art, conformity to a particular pattern, or judging the art of children by adult standards prevents children from enjoying art. In our world, with its society in such a hurry to perform the daily routine, children need experiences in art which are satisfying and enjoyable and which help develop greater sensitivity to aesthetic experiences.

Art instruction should be flexible enough to allow time and integration with other studies. Art should be used to strengthen concepts in social studies, in science, in health, and in other subjects. Art is not a study by *itself* in the elementary school; it should be a significant part of the educational process within the classroom. Art is useful in helping teachers meet special abilities, interests, and needs of children.

ART IN THE KINDERGARTEN

Art experiences which have their origin in the daily life of the kindergarten child include portrayals and drawings of situations in the home. Such topics as these are popular: "Our House," "We Jump the Rope," "I Am a Cowboy," "I Help Dad Mow the Lawn," "I Watch T.V.," "The Doctor Came to Our House," "Our New Baby," and a "Picture of My Daddy."

Art experiences often have their origin in activities at school. The teacher talks with the children about the interesting things that they are doing. She encourages them to express their feelings about these situations through the medium of art. The wondrous results are found on the bulletin boards and walls in our kindergarten classrooms all across the nation. They are found in drawings by five-year-olds depicting a visit to the fire station, the work of the traffic officer or the safety patrol boy, a rhythm band experience, a white rabbit, the planting of our garden.

The kindergarten teacher realizes the value of starting with real experiences and the relationship existing between these school activities and the objectives of art instruction.

ART IN THE FIRST AND SECOND GRADES

In the first and second grades, we do not move completely away from the home and the school environment for art content. However, in these grades the interests of children have broadened, and primary teachers build upon these widened interests in art instruction. In addition, school experiences of children have increased to the extent that reading, understanding number, ability to write, to draw, to construct, to follow directions, and to evaluate efforts subjectively are now factors to be considered in art content.

The teacher's responsibility, of course, is to know her pupils well enough so that art activity can be related to the natural interests of six- and seven-year-olds. Children are now gaining maturity, so that they begin to be selective about the choice of art activities they wish to try. Choice of project, instruction in color, and guidance with proportion are continued and strengthened in these two grades. Most primary children are easily stimulated in art, and they are becoming more sensitive to the quality of their own work. *A caution at this point:* The writers strongly feel that art at this level aims first at the development of appreciation, and teachers should *not* criticize the technical efforts of these children. This does not mean that discussion of what the pupil is expressing through his creation does not take place. This, too, is a part of content in first and second grade. What we are saying here is that in such discussions the objective is to find out the message the child has expressed in his art work.

There should be increased efforts on the part of the teacher to get children to rely more and more upon their imaginations in art and to be freer in art responses. Instruction should also gradually include ways of working with more than one art medium, greater discrimination and observation through discussion of art subjects, sharper awareness of objects in the environment, and finally, increased ability to describe these objects or environmental situations.

ART IN THE THIRD AND FOURTH GRADES

In grades three and four, children are more precise, show improved manual dexterity, and are able to make use of a greater number of art media as they express themselves. Some children in these grades are unable to express themselves freely in art. Consequently, one important responsibility at this level is to give increased attention to activ-

ities which call for the child's free responses rather than camera-like pictures. In grades three-four, additional media and ways of using materials in combination are introduced. Children are encouraged to give more explicit verbal interpretations of art work, more time is devoted by the teacher and the pupil to discussing art activities, and the impetus for projects in art comes from more intangible sources than in the lower grades. Children are urged to draw pictures or to paint forms which are illustrative of their attitudes, their inner feelings, and their emotions. This is generally accomplished by the introduction of a specific topic, such as "What I Wish." The effective teacher guides discussion so that children can see how "What I Wish" can be interpreted through art.

ART IN THE FIFTH AND SIXTH GRADES

By the time the child reaches the ten-to-twelve-year range, he should be able to interpret and to appraise his art according to its intended communicative-function. He should also begin to have practice and guidance in examining art from an objective point of view. Up to this level, primary content has pointed at appreciation. Now objectivity is added to appreciation. The program in grades five and six should include time for analysis of individual pupil art and for study of art masterpiece reproductions. At present, the masterpieces are neglected in elementary school content. Fifth and sixth graders are ready for some critical study of great art.

In these grades, more opportunity is also provided for art expression by means of hitherto unfamiliar materials. Exploration in paper sculpture and in two- and three-dimensional art is included at these levels. Imagination may run rampant in papier-mache responses as weird-looking creatures from outer space tramp through our upper-grade classrooms.

ART MEDIA IN THE ELEMENTARY CURRICULUM

To present a list of art materials and supplies which could be adapted to the needs and especially to the budget of every elementary school would be presumptuous, indeed. The writers feel that those listed here could be used in the development of effective art instruction in our elementary classes. However, we want to point out that good programs may be had with a great deal less, and that the curriculum in some schools may demand much more. This is a list of suggested art media which teachers may wish to consider for use in their classes.

Aluminum foil
Aprons (Dad's old
shirt)

Bamboo
Bar soap
Beads of different
kinds

Blotters
Boxes (cereal)
Brushes (various
sizes)

Burlap	Knives	Rulers
Buttons	Lacquer	Salt
Cans	Linoleum	Sandpaper
Cardboard	Looms (individual)	Saucers
Cellophane (colored-rolls)	Muffin cups (paper)	Saw (coping)
Chalk board	Nails (assorted)	Sawdust
Charcoal	Needles (assorted sizes)	Scissors
Clay	Newspapers	Screenwire
Confetti wire	Newsprint (white and colored)	Soap flakes
Cord		Spools
Corrugated paper		Sponges
Crayons		Spray guns
		Stapler
		String
Denatured alcohol	Oilcloth	Thread
Dish cloths	Pans	Tissue paper
Easels	Paper (various sizes and colors)	Tongue depressors
Electric iron	Paper plates	Toothpicks
Enamel paints	Paraffin	Toweling (paper)
Erasers	Paste	Wallpaper (scrap)
Feathers	Pencils	Water colors
Felt (scrap)	Pipe cleaners	Water pail
Flannel board	Plastic bags	Wax
Flour	Pliers	Wheat paste
	Poster paints	Window shades (discarded)
Gauze	Powdered chalk	Wood (soft scrap)
Glue	Powdered paints	Wrapping paper
Greeting cards (discarded)	Raffia	
Jars	Rags	Yardstick
Jar lids	Reeds	Yarn (assorted colors)
	Ribbon (scrap)	

There are many art projects and activities for which these materials and supplies may be used; for example, chalk and water, and chalk and buttermilk painting; clay modeling; crayon drawing; water color pictures; rubbing and etching crayon portrayals; crayon on fabrics; two- and three-dimensional creations; collages; cut-paper designs; cut-outs from a variety of materials pasted on a backing to form designs; cut-outs sewed to represent animals, scenes, or ideas; flannel board pictures and designs; design and making of placemats, mobiles, and puppets; finger painting; painting murals; papier-mache; pictures of powder paint; sawdust forms; designs with beads; and pictures and designs of weaving and embroidery.

FROM THEORY TO PRACTICE

The educational pendulum discussed on pages 29-30 seems to move especially quickly in the fields of art, music, and physical education. The end-of-swing position represents, for us, the situation where all subjects, including art, are taught by one person, the "home room" teacher. In such a school, you would teach your own art. In some schools, the pendulum has started back again, or hasn't reached its full swing. In such a school, the art may be taught for you by a special art teacher. But you probably will be a teacher or a director of some art experiences. We have previously said that art should be a functional part of the program in other subjects, that art is a complementary activity in the classroom. It is not an isolated aspect of the curriculum—it *must not* be limited to one or two periods of "art" or of formal art instruction, and then forgotten or unused.

You need not be an artist or even have had many art courses to your credit. While this would be helpful, you can still do well by your children in the field of art.

We suggest that, after all, art isn't really taught to elementary-school pupils. A good bit of the time the teacher's main responsibility is to provide the setting, the materials, the motivation, and then to stand back in the presence of creativity. Someone has said, "In a pinch, teach; otherwise, let them learn." This might well be applied to art experiences in our classrooms. You will offer help, direction, and instruction as the children are using art creatively, as they appreciate the beautiful, as they use art to communicate, and as they enjoy it. A closer look at how this can be accomplished is now in order.

PUTTING THE PHILOSOPHY OF ART INSTRUCTION INTO PRACTICE

1. ART IS CREATIVITY. Have you ever painted a dead fish? Drawn a banana? Attempted to reproduce Rosa Bonheur's "The Horse Fair"? The authors were required to do so in elementary school art classes. The teacher brought to class a stuffed catfish. "Wouldn't you all like to draw it?" she ordered. We did, and our success was measured by the accuracy attained in duplication. The aim? We guess it was to reproduce that fish. We remember no other.

The banana was brought to school in the teacher's lunch. She placed it on an upturned wastepaper basket on top of her desk. The banana was placed on the basket. "Draw the banana," the teacher said. Creative? Communicative? Enjoyable? Educational? Ask these same questions, too, about the copying of the "Horse Fair" or Stuart's "George Washington."

As you direct art activities for children, remember this: *creativity is basic*. Daisies don't always have to be painted yellow or white. They can be purple, too.

You will experience many thrills as you see children create artistically. Give them some ceramic clay, for example, and say, "Design and make what you wish—and then we'll put it in our kiln!" If the climate is truly one which fosters creativity, no product will be like any other. Each will be original. "Just think!" children should be able to say, "In this *whole world*, there is no other pin tray exactly like mine!"

2. ART IS BEAUTY. If art were only creative, then our great art museums, the beauty of Nature, and much else that is beautiful would go unnoticed and unappreciated. We must lead children into *seeing* art as well as *creating* it. In practice, one art experience may proceed like this: A class is taken for an art walk during a snowfall, or right after it, or to see Mrs. Mendley's dahlia garden, or to observe an interesting cloud formation.

This is an observing lesson; an enjoying, an appreciation experience. Require no drawing, no sketching, no writing after returning to the classroom. Just let the children enjoy the thing of beauty and help them see that it is beautiful. (We said you should not *require* children to draw or sketch or write about the experience. If they *choose* on their own to do something about it, encourage them. But don't let it be a lesson, or something that must be "graded.")

Art is beauty. We cannot teach just what beauty *is*, or what is beautiful. We can point out what is accepted as beautiful and what we believe is beautiful, but beauty is in the eye of the beholder. Our role is to lead children to beauty, help them seek it, want to create it, and learn how to use it in their lives.

3. ART IS A MEANS OF COMMUNICATION. An important part of an elementary-school art program is helping children realize that art communicates. We then must help pupils use art to communicate and help them read the art of others.

Art is communication. It says something to us. Perhaps it says something different to different individuals, but it has a message, and each of us can have something to communicate to others through our use of art.

Listen to a child tell you about his drawing or painting, and you will realize that he is communicating with you. His need to tell about it may suggest his own lack of faith in the picture's ability to tell its own story. Such a drawing or painting cannot be given an "Excellent," "Satisfactory," or "Poor." It cannot be given "A," "C," or "F." He is telling you, through an art form, about something—perhaps how his bedroom looks. We should no more grade or criticize this picture than we would grade a letter from a friend or relative.

Our use of art communicates something about us. As an illustration,

we once knew a person whose living-room walls were adorned with many pictures of boats and ships. Each picture showed the craft docked or beached. No ship was shown on the high seas, no sail boat taking the wind. This situation tells us something about this person, doesn't it?

You may want to try out this "communication" idea in art, and you can, on the first day of school. Usually teachers will have children tell or write about something they did during the summer. Such activity helps pupils get acquainted. Instead of telling or writing, have your pupils sketch, draw, or paint something they did or some place they visited. You'll be pleased, regardless of the age or grade you are teaching, to see how well the children can read the art of their classmates.

4. ART IS ENTERTAINMENT. Art is fun; it is enjoyable. Knowing how to use it richly and profitably adds zest to living. It is fun to plan the decorations and make them for the Halloween party. It is interesting to make puppets and stage sets for an original play; such activities bring art to life.

Our role as teachers in leading children into the various areas of art and art experiences in the broader program of education is really a privilege and satisfaction. It is a serious role, too. For children will not appreciate, enjoy, create, and use art abundantly as adults unless teachers, parents, and other adults surround them with art and art experience as children, art experiences much more meaningful and inspirational and creative than drawing a dead fish.

FROM OUR ART SCRAPBOOK

Your art experiences in the classroom may be made a bit more successful and enjoyable with a hint or two from our "Art Scrapbook."

1. Children may be discouraged and feel very inadequate if they are shown the teacher's example (painted picture, drawing, art object) before they begin an art lesson. "Today, class, you may create any picture you like which suggests the coming of winter. Here is such a picture I painted in one of my college art courses. It will give you some idea of what the picture might be like."

Not only will the children be unlikely to make a picture as good as the teacher's, but they will have their own imagination quieted by the example; they will make their picture in composition, quite like the teacher's. Thus the teacher stultifies the creativity she wished to encourage.

2. Wise planning and preparation are as important and necessary for an art activity as for any other educational venture or lesson. Providing only *one* cup of water for *five* second-grade painters, for instance, can and usually will lead to disorder and wet children.
3. Art products and work of all children should be displayed occa-

sionally, if not regularly, about the room. If, at times, you wish to display only a few drawings, tell the children your reasons for doing so.

Rarely if ever does the teacher display only "these five, because they are the best." This suggests that the teacher is an art critic and the activity was a search for art talent. Change the limitation to, "Let's choose the five which the *class likes best*," and the teacher is on sounder ground.

4. When displaying drawings and paintings in the room or about the building, their attractiveness is enhanced when they are mounted.
5. Children feel important when encouraged and permitted to sign their paintings and drawings, usually in the lower right-hand corner.
6. Do not create a "hurry-to-finish" atmosphere with art activities, for this tends to frustrate and short-circuit creativity and enjoyment. No teacher can know how much time each child will require to complete a given project. Creativity cannot be hustled into the limitation of so many minutes. Don't feel guilty if all do not finish during the art period. Either let the children continue or, if that is not possible, encourage them to return to their work during some free period.
7. Recognize when an art activity is not art. If you are asked to have your class make six dozen nut cups in a provided pattern for a local hospital, make them, of course. But recognize that this is not art. Rather, it can be a good social-studies activity.
8. Don't try to correlate art to extremes. In some classrooms, art is correlated with everything imaginable. We have said that art is an integrated part of teaching and that it should be a fundamental part of other subjects. This is not to suggest that art should be integrated or brought into every activity. To the question, "Did you integrate in art today?" you need quite often to reply, "No, I certainly did not!"
9. Do not let the art needs of the school building determine your art program. It might be nice to have the gymnasium completely decorated with pictures of turkeys and shocks of fodder for the P.T.A. meeting, but it is not a defensible art activity. Similarly, you may feel it neighborly to co-operate with the local merchants and provide fifty posters for "Clean-up" week, but it is doubtful that making that many would be justifiable. Classes must not become factories of art for the convenience of others.
10. Don't let articles from directed art classes dominate the classroom display space. We have seen rooms which display nothing else but art, with no examples of arithmetic, spelling, language, and the like. Often this is done because art lends itself so nicely to decoration, just as arithmetic lends itself so nicely to homework.

SUMMARY

Art is not a "subject" taught as a separate, unrelated unit. It should receive its fair share in the total curriculum, and not be limited to the display case or bulletin board. Neither should teachers attempt to over-correlate art, making it fit into every activity.

While art is broadly creative, there is in art education much that is not creative, and this aspect should be considered carefully.

We should remember that art is communication. The art we look at has a message; the art we create is a communicative expression. It is important to accept what the child is attempting to express in art rather than to make his art suit the adult standards of the teacher. This is not to suggest that techniques and skills should be ignored, for the teacher can be very effective in helping children, through such directions, to express themselves more easily and with greater satisfaction.

In today's schools, the material and the means for teaching children art are almost unlimited.

PROBLEMS AND DISCUSSION TOPICS

1. Interpret the following statement: The teacher's understanding of child growth and human development is mirrored in the art program in the elementary school.
2. Show how the learning principles in the left-hand column below may be applied in art instruction:

PRINCIPLES OF LEARNING	HOW ATTAINED THROUGH ART
Children learn in different ways.	
Learning is not an isolated process.	
Emotional condition affects learning.	
Learning is best served when the individual is properly motivated.	
Learning should be a satisfying process.	
Learning is more effective when adapted to "wholes" rather than to segments.	
Maturation and neuro-muscular co-ordination are important factors in learning certain skills.	

3. Show how art education contributes to the achievement of educational objectives.

4. The philosophy of "imitation" in art education has been displaced by a philosophy which is dependent upon factors of creativity, beauty, communication, and satisfaction. As a teacher in the elementary school, discuss methods which you might employ so that these factors are revealed in your art teaching.
5. If you are not a specialist in art and if the school system where you are teaching employs an art consultant, how can you make effective use of the consultant's help in improving your teaching?
6. Discuss what resources of the community are available to help teachers enrich their art programs.
7. What types of activities especially lend themselves to the development of art appreciation by children?
8. Outline *ten* art projects adaptable to the grade which you hope to teach. Tell what materials will be needed, how the objectives of art education will be met, and how outcomes will be evaluated.

WHAT WOULD YOU DO?

As a homework project, you have invited the children to design the cover for the class newspaper which they are making. A committee of pupils in another classroom will make the final choice. Cecile's design is chosen. You are especially glad, for Cecile, a shy child, has had little recognition—has done hardly anything that has brought praise and admiration from her peers, even in art. But her design certainly was outstanding. The covers are duplicated, carrying her design. Just before assembling the newspaper, you discover that Cecile's father drew most of the design for her. The other children have not yet made this discovery.

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CHAPTER 9

TEACHING READING IN THE LANGUAGE ARTS PROGRAM (PART 1)

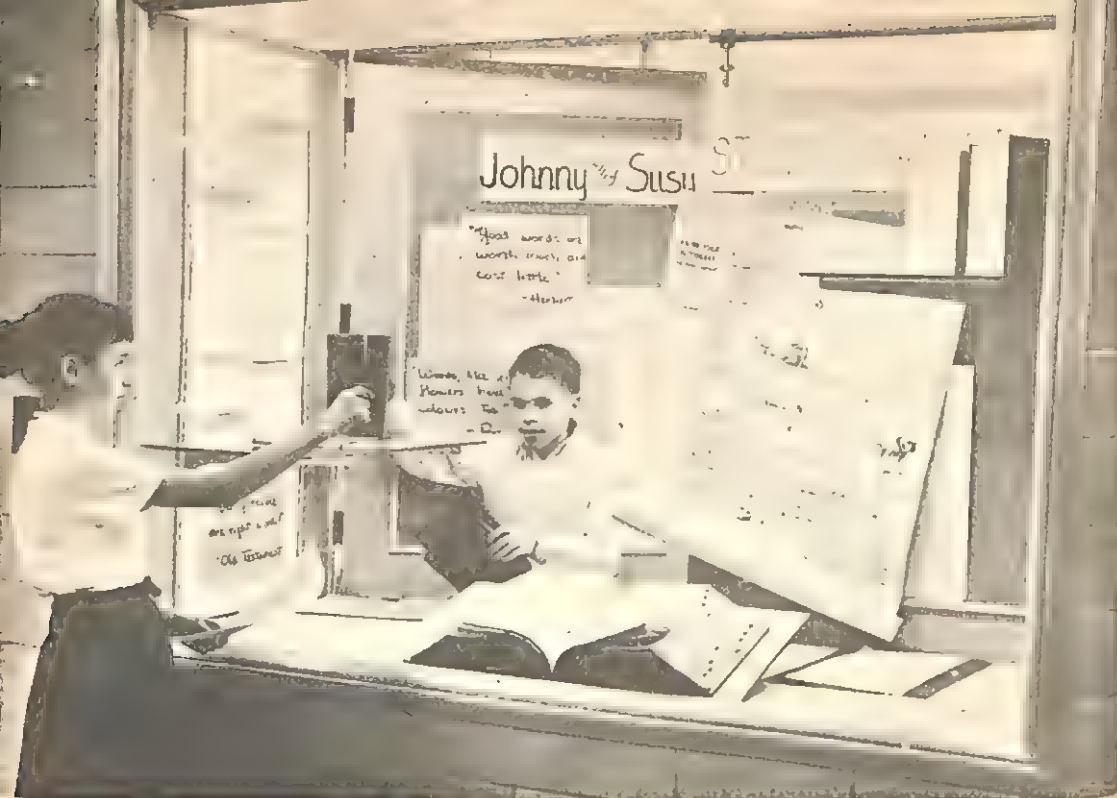
WHAT IS THE LANGUAGE ARTS PROGRAM?

The language arts in the elementary school cannot be described for the future teacher by simple enumeration of important subject areas which it embraces. The language arts affect every experience of children, both inside and outside the school. Any schematic design tending to picture this program would indeed be most inclusive, since language provides *total* learning activities.

For the college student for whom this text is written we can point out some explanations which will provide a foundation for understanding the meaning of the language arts.

Let's start with a drawing.





WORDS ARE A COMMON DENOMINATOR AMONG THE LANGUAGE ARTS.

THE LANGUAGE ARTS PROGRAM IS CONCERNED WITH COMMUNICATION. Since words are so closely tied to our job as elementary-school teachers in helping children communicate with one another, we have placed the terms *words* and *communication* at the center of our diagram above.

Words are a common denominator among the language arts. The child thinks in *words*; he expresses his ideas in *words*; he adds to his vicarious experiences by listening to or reading *words*. They are his vehicle of thought, of expression, of impression.¹

The significant curricular divisions through which elementary teachers work in helping children communicate more effectively are included in *reading, writing, listening, speaking, spelling, English usage, and literature experiences*.

If we view language arts as communication arts, then we perceive this instructional field as a social instrument. It also follows, under this broad definition, that communication pervades all school activity. Thus the elementary school teacher is provided with not only the reason for but the necessity of integrating language arts instruction with other cur-

¹ Mildred A. Dawson, *Language Teaching in Grades 1 and 2* (Yonkers, N.Y.: World Book Co., 1957), p. 14.

ricular responsibilities. Language arts becomes the direct means or the highway upon which we travel in accomplishing the integrative goal of instruction.

Elementary children at each grade level throughout the school will be on this language arts "highway." You will have some slow starters and also some fast beginners in your class. Certain pupils will come to school with richer cultural and educational backgrounds of experience than other pupils. For these there must be variation in expectations and achievement. Working with your pupils, you must ascertain these levels of readiness, interests, needs, and individual developmental stages in the various phases of study in the language arts. But at the same time, you must be alert to ways of relating language experiences to the job at hand. Children will be with you for about five hours each day, and they will be drawing upon some area of language arts most of the time. They are observing happenings about them, they are listening, they are talking to you and to one another, they are writing, they are spelling, they are making use of the English language in communication, they are working with one another, they are sharing ideas, they are writing reports, and they are appraising orally and in writing the results of their activities. Not a single subject-matter area of study escapes relationship to the language arts. The integrative educational function (the relationship of one learning experience to another), is, indeed, that of the language arts.

SPECIFIC PURPOSES OF LANGUAGE ARTS INSTRUCTION

As we have pointed out, the language arts program in today's elementary school is the common curricular thread running through just about everything you will be doing in the elementary school. This does not mean that you will give no help to children in developing concepts and understanding and skills in science, music, art, arithmetic, and physical education. It means that other knowledge and skills will be learned, in most cases, through the use of language arts abilities. So it is necessary to realize that language arts abilities and skills are not ends in themselves.

READING IN THE LANGUAGE ARTS PROGRAM

CHILDREN'S BACKGROUND FOR READING

Learning to read begins naturally, developmentally, and informally long before the child ever reaches the kindergarten. When children come to us at five years of age, they bring along with them experiences which differ, as they themselves are different. Some will be more intelligent than others, some will have many experiences of travel, of listening to stories, and most will have many hours in front of a television set which has carried them to far-away places, to adventure, and to understandings both good and not so good. They bring with them a speaking vocabulary

which, in most instances, totals about twenty-five hundred words and about fifteen thousand words and derivatives understood and used in listening. The child's experiences, then, are important to his success in beginning to read.

FACTORS AFFECTING READINESS AND ACHIEVEMENT IN READING

Some teachers, we believe, have a misconception of readiness and of their role in the reading readiness program. In the first place, there are some teachers who view reading readiness as it relates only to initial steps in beginning to read. Second, there are teachers in the middle and upper grades who think that the readiness stage has already been passed by their pupils, and they view their role in teaching reading as solely the further development of children's reading abilities. Both conceptions are wrong. Readiness for reading broadly includes several levels of achievement—and not necessarily the beginning steps only. Readiness connotes a particular level of learning. As soon as one step in learning has been mastered, the pupil is ready for the next step, and so on. Every teacher has a job to do in helping pupils prepare (or get ready) for next steps in learning. (This is true not only in reading but in other subjects as well.) Hence reading readiness is not only the concern of the kindergarten and first-grade teacher. All teachers teach readiness for varying levels of reading.

Most authorities in reading list four important factors to be considered in analyzing the pupil's readiness to begin reading and his ability to make satisfactory progress from one level to the next in reading: mental maturity, physical maturity, emotional and social maturity, and educational maturity. A significant job of every teacher is to ascertain as accurately as possible these levels of maturity of individual children. Such appraisal provides knowledge for helping pupils in areas which need strengthening. Let's examine these four factors as they relate to reading:

I. MENTAL MATURITY AND READING

If children are to progress in normal fashion from one learning step to the next, mental readiness is extremely important. Although research studies do not always show a positive correlation between learning to read and mental maturity, they do provide an excellent gauge which we should use. In Chapter 3, in the discussion of psychological foundations of elementary school curriculum, it was pointed out that one of the basic principles of child development is the recognition of individual differences. We know that children are not only different in level of mental maturity but also in the rate at which successive stages of maturity will be attained. Such differences are easy to perceive in such activities as learning to walk and talk. These variations are accepted in children's accomplishments. On the other hand, too many parents think that *all* children should automatically begin to read at age six. Stuart A. Courtis, a well-known authority in child development, once remarked humorously

to a large group of parents that he could tell them when their children would begin to read. He said if the child has normal maturity (in the four factors named above), every child should begin to read when he cuts his six-year molars. Dr. Curtis was pointing out to parents that children will begin to read when they are mature enough, that every child will not reach this stage at the same chronological age.

Mental maturity indicates a relationship to an established norm. If a pupil's score on an intelligence test is equal to that of a seven-year-old, then we say his mental age is seven. If the child happens to be ten years old and his mental age is equal to that of the average seven-year-old, we can generally assume that he is retarded. However, if the pupil's mental age is equal to his chronological age, he should be able to perform at the expectancy level of children of this age. Teachers must be careful of snap judgments, however, in evaluating mental maturity. In most cases, mental maturity scores are determined by results on intelligence tests. Too often, a group test which requires ability to read is utilized. If the child's reading difficulty is caused by factors other than mental, then such a test tells us nothing about the child.

However, children who are retarded mentally will usually be retarded in reading. They will be behind most of the pupils in the class, and they will require special attention from the teacher. They need reading material adjusted to their mental ability; they need much more time to achieve than do other pupils; they need, in some cases, tutoring and help by special teachers; most of all, they need understanding teachers and parents whose expectations for them are realistic.

If you are to teach reading effectively, the determination of the mental maturity of the pupil is a necessary step for providing instruction at the level of the child's readiness and ability to learn. Of course, the results of an acceptable intelligence test should be supplemented by the teacher's judgment of the child. There are many signs to look for: his span of attention, his ability to listen and to re-tell a story, his response to questions, his general alertness, his ability to carry on an appropriate conversation, his use of words and his general vocabulary, and his interest in books and in school. Your judgment of him in such situations and activities as these also helps you judge his mental readiness for reading.

II. PHYSICAL MATURITY AND READING

Another important factor related to reading ability is the physical condition of the child. A child may be retarded in reading because of defective vision, poor hearing, a speech impediment, or general health deficiency. These health factors should be investigated for any pupil in your class who is behind in his reading.

VISION. Signs which may indicate defective vision are squinting of the eyes, frowning, abnormal blinking, watery eyes, and red eyelids. Every teacher must be alert to such signs. Simple tests, such as the "E" test,

should be administered to all children each year. This test makes use of a large "E" on a white card. Ask the pupil to cover one eye and tell you in which direction the "arms" of the "E" are pointing. Test both eyes in this fashion. Another test consists of placing small pictures on the bulletin board and asking children to identify objects in the pictures at varying distances.

For near-point visual screening, place a book about eighteen inches from the eyes and ask the pupil to describe a picture, identify a number, or read from the page. Sometimes a visual deficiency may be noted if a pupil holds a book too close to his face while reading.

It is impossible for the teacher to make a complete analysis of visual problems. His job is that of initial screening for possible deficiencies and then referral to a specialist for diagnosis and perhaps treatment.

HEARING. Since reading is so closely tied to speaking, hearing difficulty naturally retards the pupils' progress in reading; hence screening by teachers is necessary.

Children with hearing deficiency fail to distinguish some vowel sounds and consonants. In these cases, the teacher may believe that the child is inattentive, when in fact he hasn't heard directions and cannot follow verbal teaching. These signs provide clues to cases of possible hearing loss.

Since hearing is so important to reading ability, you should not neglect the inattentive pupil, the one who turns his head to one side while you are speaking, or the pupil who has trouble in clear enunciation. These pupils may have hearing losses. If your school system does not provide audiometer tests for pupils, discuss with your principal the possibility of securing this test for your pupils through the county or the state health departments. Every state now recognizes the importance of audiometer screening, and you can get this service for your class if you work to get it.

SPEECH. One of the primary jobs in the teaching of reading is to help children associate spoken words with written symbols. This implies that teachers must be able to teach correct reproduction of word sounds. We know that children with speech deficiencies constitute the largest single group of handicapped children. This fact should help teachers to be aware of the significance of the problem, especially as it relates to instruction in reading.

What is defective speech? Van Riper gives us the following definition:

Speech is defective when it deviates so far from the speech of others that it calls attention to itself, interferes with communication, or causes its possessor to be maladjusted.²

² Charles Van Riper, *Speech Correction Principles and Methods*, 3rd ed. (New York: Prentice-Hall, 1954), p. 19.



HEARING IS A PART OF READING INSTRUCTION.

Another source provides the following suggestions for helping teachers identify pupils with defective speech:

- A. Voice defects involve:
 - 1. Intensity (too loud or too soft)
 - 2. Rate (too fast or too slow)
 - 3. Pitch (too high or too low)
 - 4. Quality (nasal, denasal, hoarse, breathy)
- B. Articulation: variations in the sounds of our language may take the form of:
 - 1. Substitutions
 - 2. Omissions
 - 3. Distortions
 - 4. Additions
- C. Defects of rhythm (stuttering):
 - 1. Repetition (on sounds or words)
 - 2. Blocking (inability to start)
 - 3. Secondary reactions (result of tension in the speech or other musculature during talking)
- D. Linguistic defects:
 - 1. Deficiencies in the development of language

2. Inability to understand or to use spoken or written language (result of brain injury in the association area of the brain)

E. Special deviations:

1. Cleft palate speech (Caused by failure in the development of hard or soft palate, the lips, or all of them. Voice is nasal, speech sounds are defective due to the inability to build up pressures in the mouth and to direct breath stream through the mouth. The cleft can be repaired, but children must be taught speech skills because they do not know how to use the muscles that form the new roof of the mouth.)
2. Cerebral palsy speech (speech and voice disorders caused by the inability to control muscles due to brain injury).
3. Delayed speech (may be associated with mental deficiency, or it may be caused by hearing loss, emotional disturbances, parental overprotection, rejection, and so on).
4. Hard of hearing speech (characterized by omitted or distorted sounds because of hearing loss).³

WHAT CAN THE TEACHER DO ABOUT SPEECH DIFFICULTIES?

You should try to find enough time to discuss the children's problems with the speech correctionist. If there are no special classes in the school system, you may be helpful in encouraging children to use good speech, especially when you are working with small groups. You can also help children who have functional articulatory defects and help others to carry over corrected sounds into everyday speech with the following information:

1. If a child's words are unintelligible, work on the defective consonant sounds. If they are inaudible, work on well-rounded vowel sounds.
2. Consonant deviations may be the direct result of wrong placement of the speech mechanism at the particular instant a sound is produced—wrong movement, wrong timing, or voicing of unvoiced sounds.
3. Listen for variations in sounds and at the same time watch closely to see what the child is doing incorrectly.
4. Determine the defective sound and start to work. Use the sound that the letter makes rather than the name of the sound. When correcting defective sounds, there are no letters in speech—only sounds.
5. Ear training is the best tool you can use in correcting sound errors. It is strengthened by using the sounds the letters make and is useful in helping children hear the correct pattern.

³ William V. Hicks and Clare C. Walker, *Full-time Student Teaching* (East Lansing, Mich.: Michigan State University Press, 1957), p. 199.

6. Merely repeat the correct word that contains a misarticulated sound while the child is reading or telling something of interest. Do not stop him for correction at this time. Hearing the right sound in the word is good ear training.
7. The child should be taught to hear the differences between the correct sound and his incorrect form before he is asked to say the correct form in words.
8. If the child cannot hear the difference, show him how the correct and the incorrect form looks. Seat him before a mirror so that he can see your face as well as his own. Let him see and hear how the correct sound or word is made.
9. After he can hear the difference in the correct and the incorrect sound in words, or in isolation, the stimulus method is the easiest and most direct way to teach him the correct usage. You may say the sound by itself, or in a word, about three times. Then ask the child to repeat it one time. This ear training method may be used without fear of increasing the child's difficulty. Watch the child to see that he is not becoming tense during practice. In case tension arises, change the activity to overcome this feeling.
10. Sounds or words may be corrected during a drill on new words in reading. Don't make the mistake of trying to correct all defective sounds at one time. Start with the ones he can imitate with ease and concentrate on one voiced and one unvoiced sound at first. When he is able to use these sounds, try to work on more difficult ones.⁴

GENERAL HEALTH. In addition to the physical factors of vision, hearing, and speech, the general health condition of the child is important to his success in reading. Loss of sleep and rest, poor nutrition, lack of energy, and failure to have adequate exercise are factors leading to poor function of body and mind. Such conditions naturally result in poor school work. Be observant of children's general health, since physical condition is directly related to ability to learn.

III. EMOTIONAL-SOCIAL MATURITY AND READING

It is not difficult to perceive a direct relationship between reading ability and mental and physical maturity. The beginning teacher should recognize, too, that there is positive correlation between reading success and freedom from problems of an emotional-social nature. Research shows that those children with normal mental and physical maturity who have reading problems are, in most cases, emotionally disturbed. A wise elementary-school principal who had spent nearly forty years working with elementary children once remarked to us: "I have discovered few normal children, retarded in reading, who do not have some type of emo-

⁴ *Ibid.*, p. 202.

tional or social block." This principal's experience was, perhaps, unusual, but for the most part, we believe he was correct in his opinion.⁵

Among those emotional-social factors which cause reading difficulties for children are these: feelings of insecurity and inadequacy, extreme shyness, overly aggressive behavior, tendencies of the child to withdraw from his peers, constant attention-seeking behavior, inability to accept criticism from classmates or teacher, evident unhappiness, and lack of self-confidence.

We strongly believe that children who are troubled emotionally are going to have difficulty and might soon become retarded in reading, and they are not going to succeed in overcoming retardation in reading until they are first helped to overcome the emotional block. Unsympathetic teachers (unfortunately, we still have a lot of them in our schools) threaten this type of youngster with failure or a low mark in reading; they talk to him sometimes in a sarcastic manner; and they do little to prevent his becoming the goat in the class because of his poor reading. All too often, parents give the child somewhat the same treatment—additional homework, tutoring, and removal of privileges until he improves in reading. The calamity of such action is the fact that the child becomes more insecure because of his failure in reading; and as his reading fails to improve, this lack of success adds to his emotional problem. Hence his reading difficulty is now an ever-increasing burden. The child is caught in an inescapable and depressing situation in such cases. He generally assumes an attitude of defeat, failure, aggressiveness, or further withdrawal into his shell, and so makes solution even more difficult.

HELPING THE EMOTIONALLY-SOCIALLY MALADJUSTED CHILD

We cannot, of course, suggest techniques of analysis or prescribe detailed treatment for a pupil who is emotionally or socially maladjusted. We can provide, in general terms, some ways of identifying and working with these children, but remember that diagnosis and treatment are not the province of the teacher. You need the help of a school psychologist, the guidance counselor, or the visiting teacher in most maladjusted cases. On the other hand, your job is to do everything you can to help the child lessen the severity of the emotional block in order that he may improve his reading. Here are some suggestions which may prove helpful to you as you work with these children.

1. You should first try to acquaint yourself with the cause of the emotional or social difficulty. Talk with the school principal and other

⁵ C. W. Hunnicut and William J. Iverson, in *Research in the Three R's* (New York: Harper and Brothers, 1958), report: "Emotional and personality maladjustments in children who failed to learn to read properly seemed to be very common"; "Maladjusted homes or poor family relationships were found to be contributing causes in 54.5 percent of the cases studied." Pp. 250-51.

- teachers who may have had the pupil in class, become acquainted with home conditions, confer with the child's parents, examine previous school records, and discuss the case with school specialists.
2. Give the pupil many opportunities to participate and share in group work. Assign him responsibilities in the class in order to build up his self-confidence, a feeling of belonging and security.
 3. Work with the child individually, pointing out behavior which results in acceptance or rejection by other children. Try to show him that you like him, understand him, and want him to succeed, not only in reading but in his relations with others.
 4. Your attitude will be extremely important as you work with emotionally or socially disturbed children. Avoid impatience, give encouragement and praise, and curb reprimands where possible. Above all, avoid sarcasm.
 5. Study the child carefully so that you can recognize his strengths. Build upon those activities in which he performs well.
 6. These pupils do not overcome their problems quickly. Plan a program over a long period of time and expect some setbacks along the way.

The important fact to bear in mind is this: the child will probably not overcome his reading difficulty until he is helped to remove the emotional block. Help him over his maladjustment, and then work on his reading disability.

IV. EDUCATIONAL MATURITY AND READING

In some instances, you may have pupils in your class who are not disturbed emotionally, who have normal mental maturity, whose health is excellent, but who have reading difficulties because of a poor background in those factors closely associated with reading skill. These children may have come from homes where books are scarce and opportunities to become acquainted with stories and good literature are limited. If so, they need encouragement to explore good books, to participate widely in library activities, and to have additional reading materials at hand.

At times, the trouble may be simply lack of opportunity for proper language development. Inadequate experiences in talking to others and in carrying on conversations may be at the root of the difficulty. Such experiences are a requisite to success in reading. Teachers should look for additional opportunities for children to converse with one another if this weakness is discovered. Such activities as oral reports, verbal summaries, and greater participation in "Show and Tell" periods, especially for younger children, should be encouraged.

Pupils classified as weak in general educational maturity may also need special help in visual and auditory discrimination. They are able to

learn, but they haven't been taught. Provide much practice in listening, in observing, and in describing what has been heard and seen. Read stories and have pupils re-tell them in the order of the happenings. Take class trips, and then call upon these pupils to describe specifically what they saw and did. Show films, slides, and filmstrips, and let them recount what was shown. In the kindergarten and first grade, provide practice in discriminating between letters, sounds, words, and pictures which appear to be alike but are, in fact, different. Make certain that younger children know left and right, that we read from left to right, and include art activities which require visual discrimination.

LET'S REVIEW

Since the teaching of reading is one of the most important jobs of the elementary teacher, we shall stop here a moment to review what has been discussed in this section.

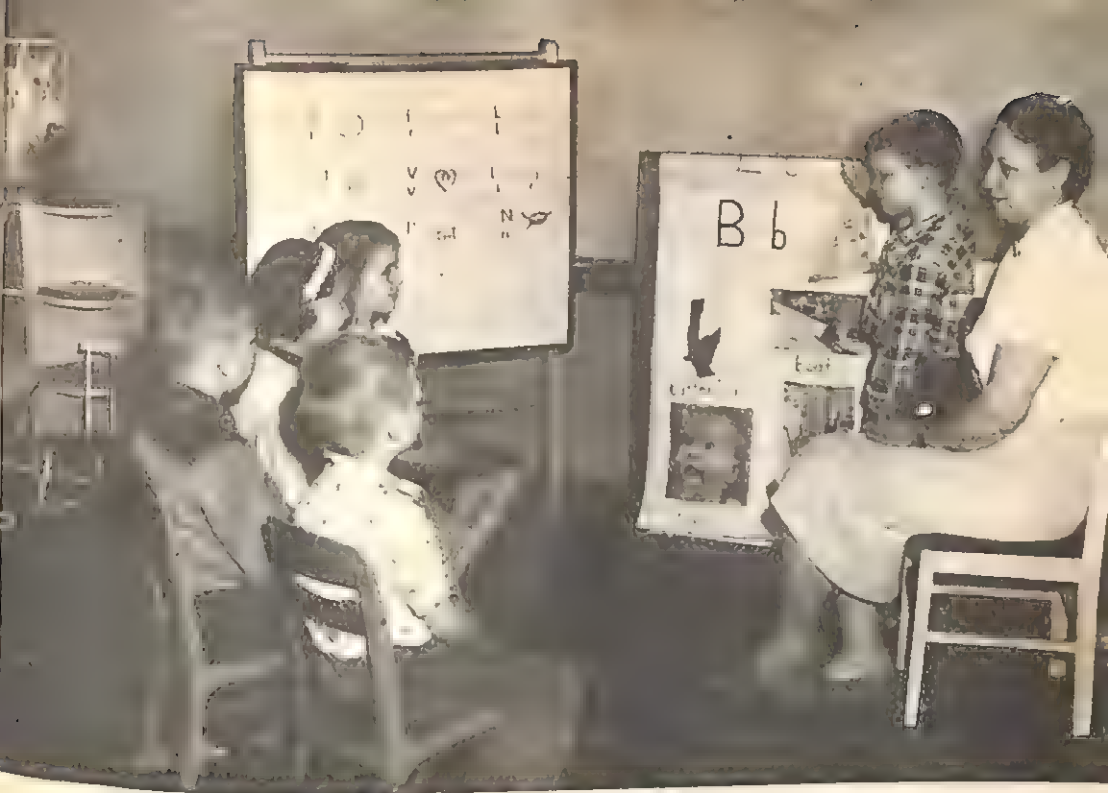
First, it has been pointed out that reading is not a separate learning in the elementary-school curriculum. Although reading skills are taught more often in isolation than in integration with other subjects, reading is, in fact, a part of communication arts or the language arts. The integrative nature of the language arts—reading, spelling, writing, listening, and speaking—was noted at the outset of this discussion.

Second, we have described in some detail four factors of maturation which affect the pupil's readiness to read and his ability to succeed in reading. Teachers must be aware of these readiness factors and have some knowledge of ways to identify causes of reading retardation and some grasp of method in treating difficulties and problems.

CONTENT AND METHOD IN THE READING PROGRAM

In Composite Elementary School, U.S.A., you will probably be using a basic reading series. This is a set of textbooks, generally two for each grade level, organized and written so that experiences, activities, and reading skills are sequentially introduced and practiced. Continuity from one grade to the next is assured in each series by meaningful repetition of vocabulary, skills, and concepts. The program in one grade level builds upon that of the basic text used in the preceding grade. Much research is necessary in the development of a basic series of elementary reading textbooks—research in how children learn, in graded vocabulary lists, in word recognition, in comprehension, in readiness activities, in materials for motivation and stimulation, in phonetic analysis or appropriate methods of word attack, and in the type of skills necessary for work-type reading.

In this text we shall not analyze every facet of content and method recommended in a total basic series. The reason is evident when one considers that some of these basic textbook series exceed three thousand pages! (Much of this material, of course, consists of review and repetition.) Consequently, we will be able to examine only the fundamental



READINESS FOR READING BEGINS WITH SIGHT SYMBOLS.

skills and activities introduced at various grade levels and describe commonly used techniques in teaching reading. This examination should provide you with specific knowledge of expectations, methodology, and content of reading in the elementary-school curriculum. If you will then study carefully one basic reading series (obtainable in your college library) and the accompanying teacher's edition for the grade you hope to teach, you should have a good foundation for understanding the reading program and for knowing how to begin your teaching of reading.

GENERAL METHODOLOGY IN READING

The method of teaching reading in today's elementary school follows the same psychological principles of learning which apply to the readiness program.

1. Reading is taught in the beginning by sight symbols.
2. Words are initially presented in *wholes* and not in parts or in component letters.
3. Pupils are taught to associate the sound of the word and the image of the word with the meaning. Hence sound, meaning, and visual form are taught simultaneously.
4. Beginning readers start the reading process by learning a sight vocabulary.

5. *Repetition* of seeing, hearing, saying, and using words in the sight vocabulary is the most significant learning principle applied initially to the process of reading in the primary grades.
6. Authorities in reading recognize that sight vocabulary alone is not sufficient as the pupil begins to meet *new* words. Phonetic analysis and other word-attack skills are taught systematically and sequentially in order that pupils may develop independent reading ability.
7. Of importance in the present-day psychology of the teaching of reading is the fact that the *whole-word* concept precedes phonetic analysis. One psychological reason given for this practice is the fact that it is easier for the child to learn by this method than by beginning with letters and parts of words. Initial success in reading, as in anything else, builds self-confidence for further progress.
8. Pictures are included throughout beginning textbooks in reading because they provide context clues.
9. Study of differences in word formation is a distinct part of learning to recognize words and sounds.
10. Developmental word analysis and phonetic study and practice are emphasized in each grade.

READING ACTIVITIES IN THE KINDERGARTEN

As one might suppose, the reading program in the kindergarten consists of experiences and activities for helping pupils develop readiness for beginning reading. The kindergarten teacher must know thoroughly those factors related to reading readiness which have been discussed in this chapter. She must be keenly aware of problems which cause maladjustment and retardation in reading. And she must know how to work with children who show evidence of abnormal mental, physical, emotional-social, or educational maturation. It is the kindergarten teacher who provides the initial instruction in the foundations of reading.

THE FIRST STEP IN READING READINESS

During the first part of the kindergarten year, the children are introduced gradually to many kinds of activities which lead toward the actual reading process. Recognizing the importance for the development in children of security, self-confidence, natural curiosity, ability to relate well to others, poise, and sensitivity to other pupils' desires and feelings, the kindergarten teacher includes experiences of many kinds for the purpose of guiding children toward these goals. She knows that children may encounter reading problems if basic needs are not met. So her first job is to provide a program for the five-year-old that helps him become oriented to school and its objectives. The teacher introduces and teaches all types of games where group and individual responsibility must be assumed. She takes walks and trips with pupils on which observation is encouraged. She reviews with children those things seen and heard. She encourages initiative. She provides for participation in social and recrea-

tional activities. These activities are more than games for fun and enjoyment; they are designed to help children meet the needs of a personal, social, and emotional nature. Their purpose is to give the five-year-old a good start in the elementary school. They are necessary for, among other things, the reading experiences which will follow.

THE SECOND STEP IN READING READINESS

The kindergarten teacher does something else, too. She includes experiences that are more closely related to reading than are personal-social activities. She reads to pupils. She tells stories to them. She gives them opportunities to talk, to converse, to relate happenings. She provides instructional films, slides, and filmstrips. They are discussed, and additional self-expression is encouraged. She teaches number and word games. She reads poetry to pupils and helps them prepare bulletin boards, murals, and exhibits. These are carefully planned and evaluated with children. She regularly includes creative dramatics in her program of instruction. She invites the policeman, the fireman, the safety patrol boy, the school engineer, and parents to visit the classroom and to talk with pupils. She encourages questions, conversation, thinking, and more discussion. In short, the kindergarten teacher creates a language environment.

THE THIRD STEP IN READING READINESS

Depending on individual progress in the personal-social development of pupils, the kindergarten teacher has yet another important responsibility in reading readiness. Children are taught that we read in a left-to-right direction. They learn to print and to recognize their names. They become familiar with symbols (words) which represent commonly known terms such as *door, table, desk, school, pencil, crayon, window, doll, wagon, train, house*. The kindergarten teacher places appropriate labels on articles and objects and informally but periodically reviews them with pupils. Children are given practice in visual and auditory discrimination—in seeing and hearing likenesses and differences in sounds and words.

Such activities lead naturally into the kindergarten's First Textbook, the initial book in the basic reading series. In most cases, this volume gives practice in reading pictures. The kindergarten teacher is supplied with a teacher's manual containing ideas and suggestions for introducing each lesson so that the teaching will not be haphazard and purposeless. Pupils are taught how to handle the book and how to enjoy the picture and interpret it. In most kindergarten programs, the following additional reading skills are introduced and practiced:

Selecting and identifying details in pictures.

Distinguishing colors.

Re-telling stories in order of events.

Interpreting two-picture stories.

Helping to formulate simple sentences for printing on the chalkboard (these are the pupils' first experience charts).

Listening, learning, and appreciating stories, poems, and songs.

Practice in visual training.

Learning to follow directions.

Beginning to associate names of characters in the first book with the pictures of the characters.

Following a picture story from left to right and from top to bottom of the page.

Increasing understanding of vocabulary—learning such words as *right, left, up, down, alike, different*.

Recognizing likenesses and differences in pictures, form, and size.

Following directions in drawing lines from one part of the picture to another and in underlining appropriate pictures and words:

Distinguishing differences and similarities in sounds.

Developing general language usage.

READING ACTIVITIES IN THE FIRST GRADE

If children were all alike, learned at the same rate, and had the same mental, emotional, and physical maturity, the first-grade teacher would be able to begin her reading program by placing the pre-primer in the hands of each child the first day of school and starting on page 1.

It isn't this easy. Pupils don't enter the first grade race lined up evenly at the starting gate and ready to begin at a signal. The initial job of the first-grade teacher is to find out *how* ready each child is to take the next steps in reading. The beginning of first grade is a review and an extension of reading-readiness activities which were introduced and carried on in the kindergarten.

READING GROUPS

After the teacher has discovered the different readiness levels among her pupils, she should group the class so that each child is placed with others of approximately the same readiness level. In most primary classes, children are divided into three groups—those who are mature and ready for quick advancement in reading, those who show average development and readiness, and those who are immature in one or more factors and who need additional work and study in readiness experiences. Children are grouped according to these developmental levels so that the teacher may better meet individual differences and provide proper instruction for both the less ready and the accelerated. Groupings should be flexible enough so that; when a child shows sufficient progress at one level, he can be moved into another group. There should also be many occasions when children work together in groups other than those in reading. This means that the teacher will re-group pupils

for activities such as art and physical education, and for committee work of various kinds.

Grouping in reading gives opportunity for the teacher to make adjustments in instruction suitable to ability levels and rates of progress. Through grouping, more attention to individual needs may be given.

READING CONTENT AND METHOD IN THE FIRST GRADE

The first-grade teacher will possibly make use of the kindergarten picture book for the less advanced group in reading. Pupils in this group need review of readiness activities and extension of experiences in readiness. Much time must be devoted to the slow group in review, practice, and exploration of activities which lead to the actual reading process. The average and the advanced groups may be started in the primer (first book of the basic series for grade one), where they will meet once more the characters and stories they read about in the kindergarten text. The advanced group will be able to move more rapidly through the primer than the average group.

In the basic series, the teacher is provided with a manual, and the pupils have workbooks which accompany the texts. The teacher's manual offers expert guidance and many good suggestions and ideas for reading instruction—for *teaching* the three groups. Stories presented throughout the basic texts are concerned, in most series, with family situations and experiences. The characters in the family are met daily throughout the year. Ordinarily the lesson is introduced by a brief discussion which attempts to relate pupil experiences to the topic in the text. Pupils are asked questions about the picture which gives contextual clues—"What do you think Kim is doing in this picture?" "Who is the boy pulling the wagon?" "What is father doing in this picture?" "Have you ever helped your father rake leaves in the fall?"

New words in the lesson should be printed on the chalkboard or placed in the pocket charts and then reviewed prior to silent reading by the pupils. The next step is oral reading in the small group. Through oral reading the children can learn what the story is about and get a good idea of the continuing plot from day to day. They should be given an opportunity to discuss the story and the situation together. During the oral reading period, the teacher can observe individual progress and difficulty. The teacher should also take time after most oral reading sessions to review word images, to practice consonant sounds, to study likenesses and differences in visual and auditory sounds and words, and to compare and strengthen word meanings.

The first-grade teacher also provides related experiences in seatwork activities which extend interest, knowledge of phonetic analysis, and practice in rhyming words, beginning and ending sounds, and the like. Not all lessons will follow exactly these steps, but most of them in the primary grades will include these basic divisions in the reading period.

READING SKILLS INTRODUCED AND PRACTICED IN FIRST GRADE

First-grade teachers are responsible for teaching the following skills:

- Training in associating sound and meaning with printed words.
- Understanding and interpreting simple stories.
- Comprehending the meaning of sentences.
- Matching rhyming words and sounds.
- Matching initial and final letters of words.
- Extending conversational ability.
- Strengthening auditory perception of initial consonants.
- Extending and increasing speaking vocabulary.
- Distinguishing between capital and small letters.
- Analyzing easy compound words.
- Associating sounds and letter symbols.
- Recognizing plurals by adding *s* to root forms.
- Recalling stories in proper sequence of happenings.
- Recognizing *on paper* similar sounds, blends, letters, and words by underlining or by drawing lines to appropriate symbols.
- Organizing ideas and anticipating outcomes in a story.
- Developing interest in further reading.

READING IN THE SECOND GRADE

The daily program of reading in the second grade is very much like that of the first grade. Since learning in other subjects in later grades is more dependent on ability to read than on the development of any other single ability, in the first and second grades reading is given much time and emphasis. In so far as subject matter is concerned, the primary grades are "reading" grades.

If you begin your teaching in the second grade, you will have the same differences in maturity among pupils as does the first grade teacher. Children will be grouped similarly for reading, and you will be expected to find out the needs of each child in order to know at what level he should begin his reading work. Some will still be in first grade as far as their reading ability is concerned, even though their report cards last June read: "Promoted to Second Grade." In the second grade, your pupils will be grouped for reading following the procedure suggested for the first grade teacher.

READING SKILLS INTRODUCED AND PRACTICED IN SECOND GRADE

The reading skills introduced and practiced in the second grade duplicate, to some extent, the reading skills of the first grade. There are at least two reasons for this duplication: (1) Repetition is a basic principle of teaching reading in Composite Elementary School, and (2) the range of differences in reading ability increases as pupils progress through the grades. The second-grade teacher assumes the task of helping pupils

grow in these reading skills. At the beginning of the year in the second grade, the pupils meet old friends—characters, names, and families which they have studied in the previous year's basic text. As time goes on during this year, the second-graders' experiences in reading are expanded, additional characters are introduced and learned, action and plot in stories become more complex, and increasing skills in word attack develop motivation for wider interest and ability for independent reading. In most second-grade basic textbooks, the following skills and abilities are emphasized:

Organization of thoughts for story interpretation.

Identification of details included in stories: "What day of the week did Grandfather arrive?" "How did he travel?" "Who met him at the door?"

Developing visual imagery in phrases and sentences.

Mastery of simple word contractions.

Recall of known words.

Strengthening structural word analysis by addition of *s*, *'s*, *d*, *ed*, *ing*, *y*, *er*, *ly*, and *est* to root forms.

Learning to identify the number of sounds in a word.

Practice and mastery of two-letter consonant sounds, such as *wh*, *sh*, and *ch*.

Mastery of auditory perception of final consonants in words.

Practice in addition of vowel sounds to initial consonants, such as joining of *o* to *drop*, *stop*, *not*.

Construction of new words by addition of letters to known words.

Increasing reading vocabulary.

Practice in recognition of complete thoughts and sentences.

Recognizing that vowels have more than one sound.

Ability to identify like initial blends.

Ability to identify root words from derivatives.

Developing knowledge and ability to use vowels as clues to vowel sounds such as these:

1. When *r* follows *i* in a word, the *i* is usually short, as in *bird*.
2. When *i* is in the middle of a word, as in *white*, it is generally a long *i*.
3. When *i* precedes *gh*, as in *fight*, the *i* is a long *i*, and *gh* is silent.
4. Y at the end of a short word sounds like *i* in words such as *try*, *dry*, and *my*.
5. In *ai*, the *a* is usually long (says its name) and the *i* is generally silent, as in *rain*.
6. In double consonants, the second consonant is silent.
7. If the only vowel in a word is the final letter, it is usually long, as in *he* and *my*.
8. In words beginning with *kn*, the *k* is silent; if initial letters are *wr*, the *w* is silent; and in words containing *ck*, the *c* is silent.

Increasing interest and ability in independent reading and enjoyment of stories, poems, and dramatic skits and plays.

READING IN THE THIRD GRADE

By the time the pupil enters the third grade, he should have a basic reading vocabulary of about eight hundred words. Of course, this will vary with the ability and maturity of the individual pupil, but most basic reading series use for recognition and practice approximately this number. During the third grade, pupils are able to make more effective use of phonetic analysis and word-attack skills and to build on experiences requiring greater maturity, so that the basic reading vocabulary is approximately double that of the first and second grades. The method of teaching reading in third grade follows the same general pattern which the child has known in grades one and two. New words are presented visually, they are pronounced by the teacher and the pupils, and the meaning is discussed. In the basic text, the pupil meets the new word many times, so that the process of repetition in learning is continued.

READING CONTENT AND METHOD IN THIRD GRADE

In addition to repetition in using new words encountered in reading, the basic-series teacher's manual provides for further auditory and visual techniques in word discrimination. The teacher helps pupils note specific details of word forms. Pointing out context clues helps the pupil remember new words. Exercises which answer questions such as these are included in the program: "How does this word begin?" "Can you think of other words that begin as this one does?" "How is this word different from ——" "How does the word end?" "Is the final letter a silent letter?" "How do you know?"

Variations in word forms are studied, and pupils are given help in identifying syllables in a word. In this grade, the pupil studies prefixes and suffixes as clues to understanding and meaning. Additional practice is given in applying rules learned in the second grade for pronouncing words. Since the speaking vocabulary in many instances will include the new reading word, the application of pronunciation rules gives additional help. Review of vowel and consonant sounds and blends is an important part of the third-grade reading program.

The teacher of third-grade pupils develops a program in reading which builds on previously established skills, knowledge, and abilities. During this year most third-graders expand their reading comprehension, their ability to use all senses in understanding ideas, paragraphs, and stories from printed words. Teachers also help pupils formulate conclusions from reading materials, and basic textbooks include stories related to the interests of the eight-year-old. In most of these basal texts one will find many stories about problems of children where conclusions and de-

cisions must be made by the pupil. Hence pupils are given practice in making value judgments.

GROUPING IN THIRD-GRADE READING

As a third-grade teacher, you will maintain reading groups like those described for the first and second grades; however, your slowest readers will need much more help than most beginning teachers realize. The range in reading ability is greater in the third grade than in the previous two grades, so that careful review and practice programs must be planned for those pupils retarded in reading.

We fear that teachers in third grade (and fourth grade, too) neglect the pupil who reads very well. The general attitude is indicated in the remark one teacher made: "Mary is an excellent reader; she needs very little help from me." But Mary's needs are not met by ignoring her. She should be encouraged to read more difficult material; she can be given greater choice of time and material for enjoyment of reading; and she needs help in mastering reading skills found normally in later grades.

More flexibility in reading groups should be allowed, especially during the last half of the third grade. Smaller groups for specific practice on common reading weaknesses should be formed when necessary. Individual reading progress is fairly easy to determine in the third grade—so keep a sharp eye out for children who should be moved upward in reading groups. Finally, watch for regression in reading ability. You want to maintain effective instruction in appropriate groups, and you will occasionally find it necessary to place a pupil in a slower reading group.

EXTENDING READING INTERESTS

Third-graders usually have a pupil workbook which accompanies their basic texts. The workbook activities try to extend the reading interests of the children. The authors of this text think that such encouragement is commendable, but we caution the beginning teacher of the middle grades to analyze children's reading interests, for we feel that many pupils do not need nearly so much repetition in workbook exercises. It is easy for you to slip into a rut and ask every pupil to complete every workbook activity. If this happens, the gifted child will become a bored, idle time-waster. You cannot afford to let this happen.

Contact your school, public, or state library and secure some interesting books on reading levels both below and above third grade. Encourage pupils to go to these during spare time. This does not mean that your better pupils will not read and enjoy the good stories in the text, but you must begin in the third grade to help pupils extend reading interests by providing as many different titles as you can bring to the classroom. Take a class trip to the local public library so that pupils can secure a library card. If necessary, take your class regularly to the library so that children may return books and obtain others. Now is the time to

motivate the reading of books outside subject-matter areas taught in school.

READING SKILLS INTRODUCED AND PRACTICED IN THIRD GRADE

Review different sections of the basic text: table of contents, story titles, and location of stories by using table of contents.

Review two-letter consonants, blends, and vowel sounds. Suggested plans and lessons for reviewing and teaching these phonetic skills are included in your teacher's manual.

Provide practice for understanding further structural analysis of words:

RECOGNIZING SYLLABLES:

- a. If two consonants follow the first vowel sound, as in *bet ter*, the word is generally divided between the consonants.
- b. If a single consonant follows immediately the first vowel sound, as in *be low*, the word is divided between the first vowel and the consonant.
- c. Words are usually not divided between consonant blends—*fath er*.
The teaching of these skills is presented in a gradual and sequential manner in the basic reading series, and teaching suggestions are provided in the teacher's manual.

Teach and review different letters which sometimes have the same sound.

Teach and review the fact that the same letter sometimes has different sounds.

Review principles of silent vowel sounds.

Introduce the accent mark and teach its meaning.

Review these vowel principles:

- a. The sound of a vowel is generally *short* if it is the only vowel in a word (unless its position is last in the word), as in *tent*, *bend*.
- b. If two vowels are together in a word, the first vowel is generally *long* and the second vowel is silent, as in *leaf*, *goat*.
- c. If a word contains two vowels, with one at the *end* of the word, the last vowel is generally silent and the first vowel is usually *long*, as in *pine*.

READING IN THE FOURTH GRADE

In the fourth grade most children are able to make effective use of skills listed in this chapter for previous grades. The number of pupils who are very retarded at this level is not as great as in the lower grades. Consequently, the fourth-grade teacher is able to plan a broader program of work reading, silent reading, and recreational reading. In work reading, the teacher should include instruction related to other subjects and practice in solving problems and interpreting and using maps, graphs,

tables, charts, and the dictionary. The fourth-grade teacher also introduces lessons designed to help pupils organize ideas gained in reading by outlining and summarizing. Reading in the fourth grade uses skills to locate information, to find answers to questions, and to enjoy stories. Reading in this grade now becomes a necessary tool to be used by the pupil in mastering goals in all other school subjects.

EXTENDING READING PURPOSES

The fourth-grade teacher will have some pupils who need review and re-teaching in second- and third-grade skills. However, if reading skills are given extreme emphasis, pupils are likely to lose sight of the real purpose of reading—ability to comprehend and understand the printed symbol. The teacher of fourth grade must remember these two broad goals in reading and provide an instructional program which helps pupils achieve them:

1. **READING COMPREHENSION.** Comprehension means that the pupil understands what the writer has said; it is the ability of the reader to react, to think about, and to interpret the printed word. Comprehension is a complex mental activity, and although we do not know specifically how comprehension "happens," we do know that certain skills are closely related to comprehension in reading. Teachers should give pupils practice in the following activities to help them develop greater ability to comprehend what they have read:

- a. Discuss stories, chapters, and lessons with pupils so as to help them see how these may be related to experiences which they have had.
- b. Ask questions after silent or oral reading which help pupils identify the main ideas in the reading. Many pupils will develop into "word readers" if teachers do not give assistance in locating the important ideas or paragraphs of the story or chapter.
- c. After a period of silent reading, have the pupils close their books and relate the story in chronological order.
- d. Another type of lesson which develops ability to comprehend is that in which the teacher poses questions about the reading before children read. Have them look for the answers to these questions during the reading. Discuss answers with pupils after the reading.
- e. Ask pupils to read a part of the assignment, have them close their books, and then let them guess what happens next. Ability to draw conclusions or inferences from a portion of a story is fun. And it helps develop ability to comprehend reading material.

2. **RECALL IN READING.** Comprehension is not enough. The fourth-grade teacher must introduce skills which will help pupils remember what they have read:

Teach simple outlining.

Provide both oral and written practice in summarizing.

Teach ability to locate information which is related to main ideas and to different ideas within the same story.

METHOD AND CONTENT IN FOURTH-GRADE READING

If you accept a teaching position in fourth grade in Composite Elementary School, you will probably use a reading textbook of an adopted series. The textbook and accompanying teacher's manual contain ideas for planning a review of reading skills, for effective teaching techniques of added skills, and for a sequential skills program in reading. Use of the reading text as a basic guide will also help in diagnosing weaknesses and pinpointing individual reading difficulties. For those pupils who are below grade level, the text and workbook exercises are especially useful as guides for planning remedial work.

In most fourth-grade reading series, there are additional stories and poems, and the material is related to the interests of the nine-year-old. Activities which send the pupils to the newspaper, magazines, the encyclopedia, and library books appear in workbook exercises and serve as motivation to enriched reading. Oral reading is not neglected in the fourth-grade program, since it serves as a means of self-expression, helps develop ability to convey the writer's ideas, and gives information to the class. Oral reading also provides another means for diagnosing the problems of the retarded reader.

You will be able to make use of many suggestions included in the teacher's manual for relating reading to problems in arithmetic, science, and social studies. Understanding and using maps, charts, graphs, outlines, and summaries are skills to be taught in the fourth grade. Pupils at this level should be encouraged to become more independent in their reading habits. Another purpose of the program in the fourth grade is to help children *enjoy* reading—to read on their own because they want to.

READING SKILLS INTRODUCED AND PRACTICED IN FOURTH GRADE

Review prefixes and suffixes as clues to understanding word meanings.

Review alphabetical order and position.

Use of the dictionary.

Use of the glossary.

Use of reference books.

Guidance in comprehending and understanding what has been read.

Guidance in effective ways to remember what has been read.

Increasing reading vocabulary.

Relating speaking and listening activities to reading.

Practice in identifying main ideas in a paragraph or story.

Practice in organizing, outlining, and summarizing what has been read.

Guiding pupils in effective evaluation of what has been read.

Practice in relating sequential order of happenings in a story.

Improvement in oral reading.

READING IN THE FIFTH AND SIXTH GRADES

In many elementary schools in the United States, retarded readers in fifth and sixth grades are not given the attention and help they need. There seem to be at least three reasons for this neglect: (1) Teachers in these grades mistakenly assume that all pupils know how to read; (2) upper-grade teachers do little to diagnose reading difficulties, or they don't know what to do with these cases, and (3) many school systems discontinue the use of the basic reading textbook at the end of fourth grade or do not schedule reading *as a subject* to be taught in the upper grades.

WHAT IS THE READING PROGRAM IN THE UPPER GRADES?

Reading in the upper elementary grades is a significant part of the curricular program in *all* subjects. The ten- and eleven-year-old pupil needs and uses reading in arithmetic, health, spelling, language, social studies, and science. Without reading, the pupil's progress in these subjects will be slight indeed. Ideally, reading in these grades is done to gain information rather than to gain a mastery of basic reading skills. Reading has become the means to information and solution of problems.

Yet reading should be taught at any time the child reads in school. In a great many fifth and sixth grades, reading as a subject doesn't exist in the teacher's daily program, though an attempt is made to weave reading skills into the subject which is being studied.

In the upper-grade reading program, reading materials are drawn from a wide variety and a great number of books on many subjects and varying levels of reading difficulty. Pupils not only read regular textbooks but newspapers, magazines, encyclopedias, research reference books, library books for recreational reading, and weekly newspapers published and distributed nationally for these grades.

Oral reading, in most upper grades, is reduced greatly. Seldom will the oral reading period as an instructional activity be found in these grades.

The reading groups, so common in the first three grades, have generally disappeared as an instructional technique by the time the pupil reaches fifth grade.

The program in fifth and sixth grades is also characterized by emphasis on work reading, to find answers for questions, to solve problems, to organize ideas, to interpret stories and assignments in other areas of study, or to substantiate findings and conclusions.

The reading purposes listed for fourth grade are more fully realized

in grades five and six. Teachers plan programs to develop further the pupils' enjoyment of and interest in reading; they help pupils recognize that reading is the best vehicle to further learning; they emphasize the importance of comprehension by providing activities which give guidance and help in understanding what has been read; they give practice to increase reading rate; and they teach the relationship of punctuation and language usage to reading.

EFFECTIVE RESULTS IN READING

Since reading is the first of the "Three R's" in the elementary-school program and since it is the means to further learning in the total curriculum, the teacher should know how to identify effective reading. The upper-grade teacher should give particular attention to this problem because he is responsible for the pupil's education just prior to junior high school. However, it is by no means the province of the fifth- or sixth-grade teacher alone; every teacher in the elementary school should guide reading instruction so that, when the pupil leaves the elementary school:

1. He should be able to read independently without an undue amount of help by adults.
2. He should be able to comprehend reading materials, at least on the 7.0 level.
3. He should have developed an interest in recreational reading.
4. He should be able to read silently at a faster rate than he is able to read orally.
5. He should be able to skim a paragraph or a chapter to locate important ideas.
6. He should be able to organize and outline rather effectively what he has read.
7. He should be able to summarize main points in his reading.
8. He should be able to use contextual clues in arriving at word meanings.
9. He should be able to draw on a knowledge of rules for pronouncing words and for dividing words correctly into syllables.
10. He should be able to use the dictionary effectively.
11. He should be able to separate insignificant details from important ideas in reading for problem solution.
12. He should have mastered an increasing meaning and reading vocabulary.
13. He should be able to use the index, the table of contents, the glossary, encyclopedias, and reference books.
14. He should be able to interpret maps, graphs, charts, and tables at a seventh-grade level.
15. He should be able to make some discrimination between propaganda and fact in critical reading.

DOES EVERY PUPIL ACCOMPLISH THESE GOALS?

From previous discussions in this chapter, you know that range in reading ability increases as pupils progress through the grades. There will be some pupils who will go beyond the objectives listed above, some who will not attain these goals, and some—the large middle group—who will master most of them by the end of sixth grade.

What can be done for retarded readers in grades five and six?

Earlier in this chapter, we advised the lower-grade teacher about how to help retarded readers. The advice applies equally well to the upper grades. The upper grade teacher must (1) recognize that the problem exists; (2) locate the cause of the problem—with the help of specialists, when necessary; and (3) treat the problem of reading retardation.

TAKE A HINT FROM LOWER-GRADE TEACHERS

Go back to the third- and fourth-grade basic reading textbooks. You can borrow them from your school principal or from teachers in these grades. Find out what basic skills have previously been introduced. Examine and study suggestions provided in teachers' manuals for instructing pupils in basic reading skills. If reading retardation is caused by the pupil's failure to understand and apply these skills and if the pupil is normal, he can be taught to read. It is your job to teach him. If this means grouping pupils of below-grade achievement into one group for effective re-teaching, then form such a group and give pupils the help they need.

The lower-grade teachers do not have a monopoly on grouping to better meet individual needs in reading. Recognition of reading retardation cases, diagnosis of causes of individual difficulty, and formulation of a program to meet reading needs are responsibilities of the upper-grade teacher, too. Helping each child read at the level of his maturity is a challenge to teachers in grades five and six.

A FINAL WORD: DON'T NEGLECT PHONICS REVIEW

We recommend that every teacher know the following easy rules in phonics and be able to apply them in teaching:

1. Plurals of words which end in *ch*, *sh*, *s*, or *x* are formed by adding *es* (*bunch—bunches*, *box—boxes*).
2. If there are two vowels in a word and if one of these is a *final e*, the *first vowel* is usually *long*, and the *final e* is silent (*file*, *fate*).
3. If two vowels are together in a word, the *first vowel* is generally *long*, and the *second* is usually silent (*read*, *main*, *paid*).
4. When a word ends in the letters *ow*, the vowel *o* is usually *long* (*mow*, *grow*).
5. When *gh* follows the vowel *i* in a word, the *gh* is silent and the *i* is usually *long* (*might*, *sight*).

6. If *y* appears at the end of a short word, it is generally sounded as a long *i* (*shy, try*).
7. When a word ends with a single consonant that follows a vowel, the final consonant is usually doubled when *ed* or *ing* are added (*stop—stopping, swim—swimming*).
8. When *e, i, or y* follow the letter *c* in a word, the *c* has a soft sound (*cent, cyclone, cistern, rice*).
9. If a word contains a short vowel sound and ends in the consonants *ck*, the consonants have a *k* sound (*back, block, stick*).
10. If *l* follows *a* in a word, the *a* usually is sounded like *a* in *ball* (*call, tall*).
11. When *r* follows the vowels *a, i, or o* in a word, the sounds are like those in the following words:
 - r* following *a*—*far, jar, marble*.
 - r* following *i*—*fir, bird, mirth*.
 - r* following *o*—*form, normal*.
12. When *r* follows vowels *e* or *u* in a word, the sounds are like those in the following words:
 - r* following *e*—*berth, her*.
 - r* following *u*—*curl, burnish, turn*.
13. The number of syllables in a word is equal to the number of vowel sounds.
14. When a word has more than one syllable and ends in *y*, the *y* is generally short (*very, kitty, berry*).

SUMMARY

The *maturity* of children must be thoroughly understood and carefully considered at every turn in programs of reading. Mental maturity, physical maturity, emotional-social maturity, and educational maturity are four factors of maturation which affect pupils' readiness to read and their success in reading.

In this chapter, the aspect of *readiness* has been emphasized. The teacher does not wait for readiness to manifest itself in children but, through skillfully planned and directed activities, children are moved into the many phases of reading readiness.

The teacher must at all times keep in mind the reading purposes for each child and each group, and test regularly to determine how successfully these purposes are being achieved.

The teaching of reading is not the responsibility of teachers in the early grades only; rather it is a responsibility which every teacher in every grade or subject area must seriously accept.

PROBLEMS AND DISCUSSION TOPICS

1. Explain this statement: "Language arts abilities and skills are not ends in themselves."
2. What is meant by readiness for learning? When does reading readiness begin? Discuss the interrelationships of the four broad factors of reading readiness: mental maturity, physical maturity, emotional-social maturity, and educational maturity.
3. What are some ways the teacher may identify level of readiness for reading?
4. Discuss some of the important remedial techniques which you should apply in helping pupils with speech handicaps.
5. Point out methods which the teacher may use in diagnosing a pupil's reading difficulty.
6. Interpret: In most elementary school reading programs, sound, meaning, and visual form are presented and taught simultaneously.
7. Enumerate significant considerations by the first- or second-grade teacher in grouping pupils for reading instruction.
8. How do purposes and methods of work-type and recreational reading differ?
9. Discuss some ways in which you will be able to help pupils improve their reading comprehension.
10. In general, how are *purposes* in primary-grade reading different from those of the fifth and sixth grades?

WHAT WOULD YOU DO?

There are three second-grade classes. Two of the teachers are veterans. The third is a beginning teacher—you. The groups were divided alphabetically without regard to ability or stages of advancement. Just before Christmas, you discover that the other two groups are further along in reading than your children. "Oh!" say your colleagues with surprise, "Aren't you further along than that?"

CHAPTER 10

TEACHING READING IN THE LANGUAGE ARTS PROGRAM (PART 2)

FROM THEORY TO PRACTICE

One of the things which will help you get started successfully with your first class is the teacher's manuals and guides accompanying reading textbooks and materials. Such manuals, we believe, are essential to good reading instruction in both middle and later elementary grades, as well as in the earlier grades. But they are especially valuable in the primary grades. We hope you will have the use of a *reading series* as you begin your work. The main reason is that, as a beginner, you will find this kind of well-structured and well-guided program of reading easier to direct and safer to use. We have seen beginning teachers who did not use the series program falter and fail as they attempted to create and follow a program of reading which might easily be a better one, basically, but which required more knowledge, skill, and experience than the beginner had. Further, we believe that a better reading program is possible if it includes both an appropriate basic reading textbook and wide use of related supplementary books and other instructional materials.

But back to the use of a series and the manuals. We have said (and still say) to our beginning teachers, "If you will seriously study and follow the teacher's manual for each book you use with the children, you can be sure of success in reading your first year." Follow the manual! We must recognize that these manuals have been created by persons whose professional lives have been dedicated to the study and teaching of reading. Your talents and creativity can still flourish and find expression as you use the guides and basic texts, for they in no way limit masterful teaching; rather these useful companions help and encourage the master teacher.

PLANNING AND PREPARATION—BACKBONE OF SUCCESSFUL READING INSTRUCTION

The basal series, its workbook support, and the teacher's manuals do not take the place of careful, thoughtful, and consistent teacher plan-

ning and preparation. In the primary grades, the quality and thoroughness of the planning and preparation for reading will determine the degree of success of the entire educational program in your classroom. When you plan and prepare well, the discipline in your room will usually be good, pupil interest will be high, and children will work with more purpose and understanding. And you will enjoy teaching. If you do not succeed in reading, all else will suffer, and success in any endeavor—be it art, music, science, social studies, or any of the rest—will elude you. For poorly planned or totally unplanned and unprepared activities in reading (and the other areas, too) are the germs of infection which spread quickly, causing classroom chaos. We say this because reading is the heart of the primary school program. Out of this program grow the other language arts and subject experiences. If the reading program is chaotic, the total program disintegrates.

Thus planning and preparation are two essential and productive allies which open doors to reading success. But this takes time. The 9:00 to 3:30 teacher—the one who arrives just under the wire and leaves in the wake of her departing pupils every day—will find planning and preparing most difficult, for much of it must be done at school and in the classroom itself. Preparation of many of the materials, of blackboard work, experience charts, bulletin boards, and the like, must be done at school. Give to the job of teaching the time it requires and deserves.

DUPLICATING MATERIALS

Since the heyday (a long time ago!) of the pan "hektograph," usually made in the kitchen of the teacher's home, teachers have been duplicating materials to be used in reading. Drill exercises, workbook materials, word lists, and stories are some of the kinds of materials duplicated.

The quality of much of this kind of material we have seen was poor, and pupils may have been harmed physically by straining their eyes to read much of this material.

Today, good duplicators (even electrically operated in some instances!) are standard in our schools, and typewriters are often available for teachers' use. Duplication is sometimes done for the teachers by the office. Yet even with these good facilities and situations, poorly prepared materials are being placed in the hands of our children. Test your own productions against these standards:

1. The reproduction is clear, vivid, bright.
2. Handwritten material is neat, with print or script of a size easily read by the reader.
3. Manuscript printing is used for primary grades (typewritten, the best).

4. In both handwritten manuscript and cursive writing, the letters are made correctly. As we write, we also teach handwriting. We must keep aware of this fact.
5. The material should be balanced and attractively presented on the page.

"NOW, TURN TO THE BLACKBOARD!"

You will make this statement hundreds of times during your teaching career. "Boys and girls, will you now turn to the blackboard." The term "blackboard" is used here, though we know there are green boards, brown boards, chalk boards, and the like. Incidentally, some school systems, having earlier abandoned the old faithful slate blackboard, are returning to it in their new buildings.

Anyway, test what you write and draw on the blackboard against the same four standards for duplicating material. The use of colored chalk can be very effective, though the custodian may not be happy about it. In writing on the board, remember the little fellow in the last seat. Can he see what is written?

GROUPING AND ORGANIZATION IN READING

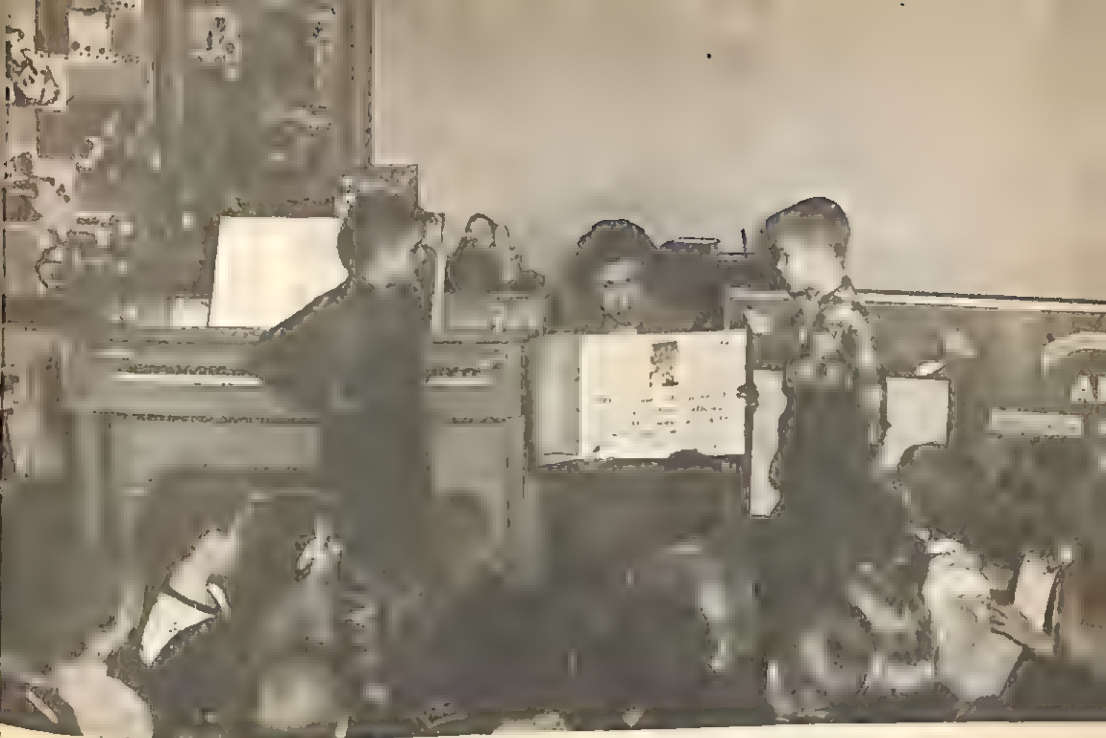
Grouping was discussed briefly in the preceding chapter. A more detailed analysis of grouping will be made later in this chapter under the topic "The Ungraded Primary Plan." At this time, let us concern ourselves with the mechanics of grouping for reading instruction.

We will assume that, in one way or another and for one purpose or another, you will group pupils for reading instruction, for independent study, for group study, and the like. We assume also that you will have in mind various purposes and objectives you wish to accomplish by grouping. Unless the physical and mechanical features and procedures operate smoothly, the educational aims can fail.

SOME PROCEDURES FOR THE READING CIRCLE

Regularly or irregularly, small groups of pupils will gather somewhere in the room to receive instruction and otherwise participate in reading experiences. This gathering is commonly called the "reading circle." You know the purposes and activities of the reading circle. Let us, then, suggest some rules, a *modus operandi* which, if held to, will help the learning situation in the room. These rules can well be arrived at through pupil-teacher discussion of the needs for them. (Do not shrink from using the word "rules." Rules are good and necessary. Why call them something else?) Consider the following:

1. Establish a quiet and orderly manner for coming and going. Entering and leaving the circle from the side, rather than filtering



GROUPING FOR READING INCLUDES OCCASIONAL TOTAL-CLASS INSTRUCTION.

- through between the chairs. is more orderly and avoids knocking over chairs.
2. Rushing for certain chairs and rapid changing of places to sit by or avoid sitting by certain children are out of order. This is not to say that chairs should be assigned, though they may need to be for a while.
 3. The teacher should not permit children to give answers at will. Blurting out a word on which the reader is working is discourteous. Nor should the teacher permit children to pronounce too quickly a word that a child is attempting to work out. The teacher should never give instructions hurriedly or without the attention of all, nor should she permit constant interruption by the non-circle children.
 4. The teacher should keep her voice and the children's voices soft. She should locate the reading circle so as not to block the view of anything the "out group" may need to see. The circle should be placed to make best use of the blackboard, chart facilities, and so on. The teacher should avoid obstructing with her body the view of any child, and avoid writing on the board in a contorted fashion from her chair. Such writing is usually contorted.
 5. Timing is important. Teachers err far more in the direction of too

long a circle session than too short a session. The teacher needs to develop a keen sensitivity to restlessness in children. (Their restlessness is an example of how they communicate to us in ways other than the spoken word.)

THE "OUT GROUP" NEEDS DIRECTION, TOO

It follows that when a group of children are working with the teacher in the reading circle, the rest of the children are somewhere else, engaged in a different activity, controlled or uncontrolled. Wise teachers demand that the "out group" be as well controlled and as profitably engaged as the "in group." The non-circle group is quite often the teacher's nemesis, the element that limits the effectiveness of her reading-circle experiences. Rules are also essential for the children not in the circle.

SUGGESTIONS FOR DIRECTING THE "OUT GROUP"

1. Permit little or no coming up to the teacher (who is in the circle busy with the group there). We have seen teachers who do permit this and who handle it very skillfully and with little apparent disruption of the class. But as a beginner, you may find it a difficult procedure.
2. Develop in all children the ability to work independently. You may be surprised (and greatly pleased) to learn how talented even a first-grade youngster can be. Teachers can usually get what they want and are willing to "pay for" in this matter of control, pupil management, discipline, and independence.

Knowing how to work and direct themselves independently is desirable for the elementary-school child. This ability becomes crucial in the secondary school. If the teachers do not establish in boys and girls excellent habits of study and self-direction before the students enter the junior high school, such essential habits may never be established to the degree necessary and possible.

- As you teach, occasionally evaluate your teaching and your pupils' progress in this regard. Are your pupils showing evidence of good habits of study and independent action? Are they showing growth in this regard? Such an evaluation can be very simple. On any day merely look about the room several times and observe what is happening. Following directions and instructions, carrying out assignments, dispatching responsibilities in a business-like and orderly fashion, working independently, following a plan—these are indications of good habits of study and self-direction.
3. The arrangement of pupils' desks or tables has an unmistakable influence on the behavior of the out group. Do not be afraid of a straight row, with one desk behind another, especially during the reading period, if you find it is only by this arrangement that you can get the control you need. At first it is best for a child to sit

alone rather than with another child, or in some other arrangement. When pupils can handle a more informal seating arrangement and a more informal situation, a different kind of atmosphere can then prevail. We advise you to go from the formal to the informal. For you probably already suspect that the way back from the uncontrollable and chaotic informal to the controlled and regulated formal is a long, hard trip.

4. You must plan well and prepare well for the out groups. The instructions you give them need to be clear and specific. The children must be attentive to hear them. Always test children's reception of instructions and directions, for misunderstanding leads to confusion, even to mischief.
5. It is impossible—and perhaps also undesirable—for the teacher to provide each member of the out group with enough study and activity material to keep him constantly and profitably busy at his desk until she is ready with a new activity for the entire group. Some will finish the work you give them far ahead of others. Others will finish, too, even though the teacher has prepared well. Do not feel defeated or apologetic if this happens. For it will happen. Children devour material with insatiable appetites. "What can I do now?" will be a familiar refrain to you.

Instead of attempting to provide enough seat work for every child to last him through all reading groups, establish a plan for pupils to follow when they do finish the assigned work. It is important that the teacher insist on the plan being followed in a quiet and orderly fashion. Some suggested activities are:

- A. Return to some previously unfinished work or project.
- B. Make corrections on work returned or checked by the teacher.
- C. Help others, if this can be done under the rules.
- D. Move to some other area of the room—the library corner, science table, bulletin boards, easel, or work table—to observe or work.
- E. Work in small groups or committees on drill, projects, and the like. This will probably not be advisable at first, for it takes time to develop this degree of self-management in children. In the upper grades, of course, this is easily possible. You may inherit a class already skilled in committee work.

READING SHOULD ALSO BE INDIVIDUALIZED

We have been discussing the mechanics of grouping. Not all reading should be a grouping matter, however. Reading instruction should be given individually as well as in groups. There is a trend toward more and more individual reading instruction, and we believe it to be a good trend. Leland B. Jacobs writes:

That learning to read is an individual matter no authority will deny. Nor is it controversial to say that, within each person's generalized reading ability, there exist unevennesses in skills development. Nor does anyone question that within a given classroom there will be a wide range of abilities in reading, and that the older the group of children, the wider the range. Nor is there much argument that causes of retardation in reading are varied, and usually multiple. While other general agreements might be noted, these seem to be sufficient to point up the fact that whatever the sequence of learning activities provided for children, whatever the time allotments, whatever the reading materials and aids provided, whatever the methods employed, learning to read is and will continue to be individually achieved. Every reader will always differ, in use of skills, in general ability, in preference and taste, in interpretation of the printed page, from all others. A reader is always alone in his reading.¹

As a beginning teacher you have a golden opportunity to keep from establishing a habit we would like to see veteran teachers break. The day must soon pass, in the teaching of primary reading, when two, three, or four reading groups march regularly to the reading circle, day in and day out, with never a change in routine or order.

Don't establish so strict a pattern. Some otherwise excellent teachers have so routinized their reading procedures that they just cannot bring themselves to make a change—not even to changing the order in which the groups march to the circle. But reversing the order of circle marching is hardly enough. Many times, many days, you will need no circle at all. Teach reading, on these days or at these times, individually. Move from one child to another, conducting a private reading class. As you visit and attend each child:

- (1) Hear him read.
- (2) Help him with his reading problems.
- (3) Test his silent reading.
- (4) Check his workbook and other material, and discuss right then the work he has done or needs yet to do.
- (5) Record, on his record page, significant and guiding information about his reading; note progress made since the last notations.
- (6) Guide him carefully and safely into further reading, skill building, concept-clinching activities.
- (7) Comment on his new shirt or her pretty dress.

From this individual work will come needs for certain group instruction.

You will also want to individualize as much as possible the materials

¹ Leland B. Jacobs, "Individualizing Reading Is Not a Thing," *Individualizing Reading Practices*, No. 14 (New York: Bureau of Publications, Teachers College, Columbia University, 1958), p. 1.

of reading used. Pupils may often be working individually in books other than the basic reader. The basic reader is not the answer to all reading needs. We have only to note the rich and varied amount of supplementary materials which are a part of any well-known basal reading program. Reading should be further individualized by the use of such materials as puzzles and games, audio-visual materials, reference books, and the like.

CHILDREN WITH SEVERE READING PROBLEMS

Earlier, in Chapter 9, we urged the teacher to identify children's problems in reading and to work aggressively toward the elimination of those problems. There is, of course, a line that separates a *simple* or *moderate* reading problem from a *serious* reading problem. The teacher must seek the help and advice of others in making this determination.

Serious harm can come to the child when a teacher assumes diagnostic and prescriptive capabilities which she does not have; when a teacher without the training and knowledge demanded in handling the case of the child with a serious reading problem makes a diagnosis and then sets up a program of remediation based on that analysis, she is playing with fire. We have known instances where parents were advised by teachers who really could not make an accurate diagnosis or recommendation.

Bond and Wagner, in discussing who should help the child with a reading difficulty, counsel the teacher in these words:

The teacher in the modern school is prepared to give re-educative help to an individual child in minor difficulty as he needs it. Minor difficulties arise frequently, are attended to, and are forgotten. The teacher locates the trouble and overcomes it in the ongoing progress of the day or week. For the child in severe difficulty, it is necessary to supplement the classroom teaching by special instruction in reading given to reading groups apart from the class. Usually the teaching of groups of children or of individual children away from the class is done by a specialist in reading . . . one who has had extended training and experience in reading."

Since the child with a serious difficulty in reading may be expected to have other difficulties, it is important that the classroom teacher seek help and advice. Bond and Wagner say, in this regard:

The needs of some children in severe difficulty cannot be met adequately by group work. The needs may form so complex a pattern that individual instruction by a trained specialist is required. A child in severe difficulty may even require the facilities of a child study clinic to disentangle his difficulties. Usually the child who requires so intensive and extensive individual attention has not only complex reading confusions, but he has

"Guy L. Bond and Eva Bond Wagner, "Child Growth in Reading" (Chicago: Lyons and Calnahan, 1955), p. 176.

rejected reading as something he cannot learn. He has tensions associated with reading and is antagonistic toward reading. He must have careful and systematic and prolonged diagnostic and remedial aid.³

In any grade you may teach in the elementary school, you are quite likely to find some children with serious reading and emotional problems. It is important that you determine early that there is a problem. When you have even a slight suspicion that the problem is serious, talk with your principal about it. He will guide you from there on.

THE UNGRADED PRIMARY PLAN

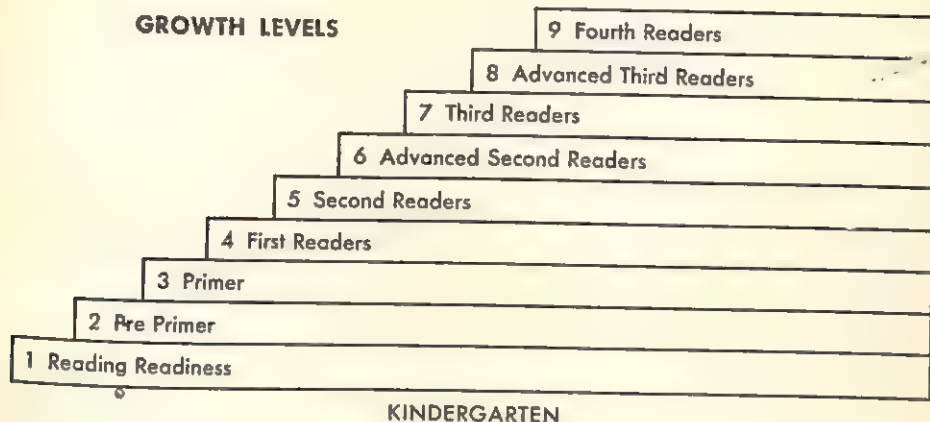
There is a growing acceptance in American schools of the so-called "Ungraded" or "Primary Plan" for organizing the early elementary grades. In some school systems—Milwaukee, Wisconsin, for example—the entire school, first grade through sixth grade, is ungraded. Among the leaders in this movement is Robert H. Anderson, who describes the ungraded plan:

An ungraded primary school is simply a plan whereby children beyond kindergarten age and below the fourth grade level are grouped together in classes which have no grade level designation. In the words of Florence Kelly of Milwaukee, where the ungraded primary school has had its largest application, it is a "plan whereby children of similar chronological age and social emotional maturity are kept together when administratively possible." The administrative labels, "first grade," "second grade," and "third grade" are eliminated in such an arrangement, and the three year course of study preceding the fourth grade becomes a more flexible program with fewer time limitations and fewer crisis points at which difficult judgments or decisions about pupil promotion must be made. The typical child who enters an ungraded primary class following his "promotion" from the kindergarten simply enters a classroom with no label except "primary." For the next three (or more or less, depending upon his maturity and progress) years, he continues to live and work in a classroom which has no label except the word "primary." He continues to do the same kind of lessons . . . that he would encounter if he were enrolled in a typical first or second or third grade class; the difference, however, is largely in the fact that his teacher has no grade level expectations against which to pace herself and her only obligation is to keep the youngsters moving along as fast as they are capable of moving. In June, when the children take home their final progress reports, no mention is made of a grade assignment for the ensuing year and the parent is simply advised that the child will continue in primary school and pick up in September where he has left off at this point in June."⁴

³ *Ibid.*, p. 177.

⁴ Robert H. Anderson, Harvard University Graduate School of Education, "Ungraded Primary Classes—An Administrative Contribution to Mental Health," *Understanding the Child*, June 1955, pp. 68, 69.

While different schools fashion their plans to serve the needs of their children and situations, all ungraded primary schools maintain the central theme of the ungraded idea—that of continuous learning without interruption. The Primary Plan of one school is described now to delineate more fully the ungraded concept. Like most such plans, this one is organized on the “level” concept, in this manner:



MEANING OF THE LEVELS

The Ungraded Primary Plan, in theory, is not a different method of teaching; rather, it is a different method of *organizing*. The children are grouped on several levels for instruction. Most plans are built with heavy emphasis on the reading program. In fact, the Primary Plan and the reading program are often synonymous in many respects.

Levels are “stages of progress” or “levels of advancement.” Aims and objectives are created for each level, skills and understanding a pupil must have before progressing to the next level.

THE LEVELS IN OPERATION

All pupils go through all levels, though they require different amounts of time to complete each level. There is no time limit, either for teacher or pupils, for completing any level. When a teacher believes a child (or, more often, several children who have been grouped for reading) is ready to leave a level, the reading test which accompanies each book of the series is given. Based on the results of the test and teacher judgment, the child moves into the next level or remains in the present one for further progress. This is one of the real strengths of the Plan: no child is forced into reading problems; no child gets into trouble, being made to attempt harder reading than he is prepared for. If a child's test scores are not satisfactory, he is given remedial work, or is involved in still more reading and drill to strengthen or secure the skills of that level.

A teacher probably will not give the test right after finishing the basic book of the level. She may have the children read three or four other readers from another series, and read library books for various purposes. There is never a race to see how quickly the series can be completed.

A teacher may have children in several levels, though this plan discourages wide spreads of stages of progress in any one classroom.

At any level, of course, the children are doing work in other subjects. Arithmetic, science, writing, health, and others are included.

At the end of the school year, each child ends his work in the level or at the place in the level that he has reached. He returns to this area in September. This is another strength of Primary Plan. No failing, no promoting—just a sensible continuation. No feeling of failure, no grade barriers for any child to hurdle.

Indeed, the children need not be made aware of levels at all. No mention need be made of them when the child goes from one level to another. There is no purpose in talking to children about levels, except as the curious ask. At the end of the three-year block, there will probably be a few pupils who will need (and be entitled to) a fourth year to complete the block. Thus, they are not retained but continue on, without interruption.

THE TEACHER AND THE PRIMARY PLAN

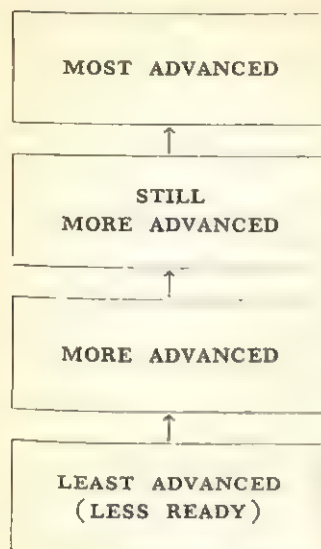
It is obvious that the teacher does not remain with a group for the three years, since no group remains intact for three years. First the groups are organized; then the principal decides on the teacher for each group for the year. Actually, assignments are made by the principal and teachers in concert, considering benefits to the children first and then teacher talent, teacher preference, and other elements. One teacher may like especially the readiness levels (1-2) and, for the most part, work with this group each year. Another teacher may favor a different level.

ORGANIZING THE GROUPS FROM THE KINDERGARTEN INTO THE PLAN

Late in May, each kindergarten child is given a reading-readiness test. "At first," reported one school, "we also gave a group mental test, but we found the scores of little value in grouping. Too, this gives us further and conclusive proof that *we do not group according to intelligence or ability*. We group according to readiness for and stages of progress in."

After the tests, the tester, the principal, the reading consultant, and the kindergarten teachers place each child in one of the new groups.⁵ Teacher judgment is very important and is given much weight. The four groups were:

⁵ This particular school formed four groups. In smaller schools, the grouping could not be as refined as this. However, Primary Plan has much promise for any size school, even a one-room rural school.



These children may well have had some of the pre-primer activity in kindergarten. Some of these children may finish the three-year block in two years, but not many will.

In these groups (even in the "Most Advanced") are children with varying abilities. Some children in the two most advanced will have lower I.Q.'s than some of the children in the two least ready or least advanced groups.

These children, some of whom are very bright, need extended readiness experiences. In Primary Plan, the teacher has the time for such a program.

ORGANIZING THE GROUPS AT THE END OF FIRST YEAR AND AT THE END OF SECOND YEAR

At the end of the first year and the second, children are regrouped for the next year, according to stages of advancement reached. Thus, the range is narrowed again, and this has significant advantages for teaching. At the end of the first year some of the least advanced may be placed in the "More," "Still More" and possibly even in the "Most Advanced" group. Conversely, some of the "Most Advanced" may not have progressed as well as was predicted and may be re-grouped with other children at a lower level.

Occasionally, when all factors are positive and promising, a child is moved to another group during the school year.

STRENGTHS OF THE PRIMARY PLAN

1. It provides the child with a three-year block of uninterrupted time in which he can learn to read as rapidly or as slowly as he needs to.
2. It assures that the child has mastered the concepts and understandings of one level of reading before being permitted or forced to go to the next level.
3. The child is not faced with failure, which has a negative effect on learning. In Primary Plan, a child is constantly succeeding at the rate of which he is capable, *not* at the rate set by a calendar or an artificial limit called a grade. Primary Plan thus provides a unit of years that is adjustable to the lags and spurts normally accompanying the development of a child.
4. The child who needs more time to learn to read is not pressured to keep up with those who move faster. Conversely the child who

is learning rapidly is not made to wait for those who move more slowly.

5. Primary Plan recognizes no barriers of grade level of any book or material. For example, those children in the first year of Primary Plan ("first grade") who learn rapidly may move right into "second grade" material during his first year.
8. Primary Plan narrows the range of stages of development children are in. In other words, children who need longer readiness development are grouped with one teacher, who can thus more completely build her program for those children. These groups, however, are not based on ability or intelligence. There is little correlation between a child's intelligence and his readiness to learn to read. Some children with high intelligence, for example, often need to move into reading slowly.
9. Primary Plan frees the teacher from pressures (which are passed on to the children) of meeting artificial end-of-grade achievement levels or test scores, or getting every child to a certain place in a reading program. It also frees her from declaring which children can go on and which children fail.
10. A few children may be able to go through the three-year block in two years. An advantage here over skipping in the graded plan is that, in the Primary Plan, the child will not skip anything; he will take every step.
11. This plan permits and encourages more attention to the gifted child.
12. The plan bridges the gap between grades two and three, an educational chasm that has long existed in our schools. Through Primary Plan, the child moves smoothly and undisturbedly from second-grade material to third-grade material and into the textbook world of grade three when he is ready, and with little disturbance.

SUMMARY

It has been found that children all over the world are learning to read successfully despite the varying methods used in the teaching of reading. Whatever method teachers may use, they will need to group for instruction, recognizing differences in growth and learning rates. The teaching of reading also needs to be individualized—tailored to meet the peculiar and unique requirements of each pupil.

The *ungraded primary plan*, which is being used more extensively, holds promise not only in the field of reading but as a way of organizing the entire elementary school for better continuity of learning.

During formal reading instruction, the teacher must keep control

over at least two groups. Rules have to be established and followed in order that this period be conducive to learning and study. The "out group" must be working as the "in group" receives the direct attention of the teacher.

PROBLEMS AND DISCUSSION TOPICS

1. Select a teacher's manual in reading along with the pupil text books for the grade you expect to teach and study these carefully. They may be borrowed from your nearest elementary school or obtained in your college library or reading center. Invite to your class a teacher or teachers who have completed their initial year of teaching and ask them to discuss the importance of these instructional materials.
2. What opportunities are there for the primary teacher to depart from the adopted series in reading? What are some worthwhile reading activities which might be added to or substituted for suggestions in the teacher's manual?
3. What are the implications of this statement for the beginning teacher: "If the reading program is 'chaotic,' the total curriculum in the classroom disintegrates."
4. Discuss some criteria for judging the effectiveness of teacher-prepared "seat work" for pupils.
5. Review and discuss the rules for reading groups presented in this chapter.
6. What are some techniques for meeting the needs of the "out group" (pupils not for the moment in the teacher's reading circle) in the class? This problem, perhaps, is one of the most difficult for the beginning lower-grade teacher. It deserves the careful attention of your class. Why not do some thinking about it *at this time* and start to prepare for its solution?
7. Through a class panel, discuss techniques for individualizing reading instruction.
8. Invite to your class a resource person who has had experience with the Ungraded Primary Plan. Ask him to describe this method of primary school organization.
9. What are some advantages of the Ungraded Primary Plan?

WHAT WOULD YOU DO?

With your first-grade class, you are doing a superior job in the teaching of that important subject reading. Your principal has visited your reading classes and has commended you on your instruction and activity. You read the manuals well before each class session, prepare additional materials, make charts, make good use of the chalkboard, meet

the needs of the outgroups most satisfactorily—you are doing a fine job in reading. Then you discover that most of your time is being given to the preparation for and direction of reading, and that the other subjects of the curriculum are being neglected.

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CHAPTER 11

LANGUAGE AND COMMUNICATION

SKILLS

IMPORTANCE OF THE LANGUAGE ARTS

Except for those who are functionally handicapped, all pupils make daily use of the arts of communication: listening, speaking, reading, and writing. Mackintosh says that in this day of television, "many pupils *listen* the equivalent of a book a day; the average person probably speaks a book a week, reads a book a month, and in a lifetime writes the equivalent of a book of ideas in a creative way."¹

Children develop habits of listening and speaking long before they begin their formal education. Habits of speaking clearly and listening attentively vary even in the kindergarten. This level of mastery depends on home background: the kind of encouragement in communication from parents, and the type of experiences and opportunities provided in early life. As a teacher, you can easily detect these differences.

In large manner, responsibility for helping each pupil make satisfactory progress in language arts rests with the school. Throughout our lives we must communicate with one another, and individual success in attainment of personal goals is closely related to ability to communicate—to get across our ideas to our fellow men and to receive ideas through observing, listening, and reading.

PHILOSOPHY OF THE ELEMENTARY LANGUAGE CURRICULUM

The language curriculum in the elementary school is founded on fairly common and well-defined principles. Although authorities in this field do not agree in every respect about the content and pattern of teaching, the following elements make up the fundamental philosophy in language instruction.

¹ From an address by Helen Mackintosh, U.S. Office of Education, at the annual conference of the Department of Elementary School Principals, National Education Association, Denver, Colorado, March 7, 1956.

1. Language serves the everyday needs of children. A good language arts program contains communication activities related to interests and purposes in the daily lives of children.
2. Language is necessary in every subject taught in the school. A good language arts program includes skills and content which are directly related to each curricular area.
3. Language skills are learned best when practiced in meaningful situations. A good language arts program provides for wide pupil participation in listening, speaking, reading, and observing.
4. Language skills are best developed when provision is made for guided practice for new learning and maintenance review of previous learning. A good language arts program introduces skills and facts at the child's level of understanding and includes balanced practice throughout each grade, so that useful communication skills are strengthened and maintained.
5. Language development is enhanced through motivation toward creative expression. A good language arts program provides encouragement for pupils' creative outlets in speaking, writing, and dramatics.
6. Language instruction must meet individual needs and abilities. A good language arts program is so organized that the varying needs of pupils are diagnosed effectively and met successfully.
7. Language teaching aims at improved standards of pupil growth in communication skills. A good language arts program helps each pupil establish criteria for measuring progress and improvement toward appropriate communications objectives.
8. Language is necessary for social competency. A good language arts program provides many experiences to help children grow in conversational ability, in courteous listening, in speaking and writing skills, and in acceptable social conduct.
9. Language achievement is augmented by increasing opportunities to experience, to sample, and to utilize a wide variety of sources. A good language arts program makes use of many instructional materials in addition to the basic textbook.

OBJECTIVES OF THE LANGUAGE CURRICULUM

The purpose of language instruction, broadly stated, is the acquisition by pupils of effective habits of communication. More specifically, we may ask this question: "What particular abilities and skills in language do we expect most children to master in the elementary school?"

1. Ability to talk informally with a group and to a group, and to observe rules for courteous listening.
2. Effective habits of clarity and enunciation in speech.
3. Development of a pleasing and well-modulated voice.
4. Practice in good telephone manners.

5. Ability to participate in group discussion: to contribute ideas, to appreciate suggestions of others, to listen in a mannerly way, to hold to the topic under consideration, to distinguish between important and irrelevant differences of opinion, and to contribute ideas gained from independent reading and thinking.
6. Ability to recall happenings in proper sequence.
7. Practice in speaking in complete sentences rather than in fragments.
8. Establishing effective patterns in verbal reports: growth in varying sentence structure and in use of descriptive words, ability to distinguish between fact and opinion and to organize oral reports so that others are able to follow them closely.
9. Development of vocabulary: greater sensitivity to and understanding of "color" words and adjectives, action words, words which explain how something is done, words with similar sounds but different meanings, words spelled alike but with different meanings, words which sound like the situation described, rhyming words, and knowledge of root words, prefixes, and suffixes.
10. Mastery of appropriate English usage, ability to speak and write in grammatically-correct fashion.
11. Ability to use proper punctuation, grammar, and capitalization.
12. Ability to recognize nouns, pronouns, verbs, adverbs, and adjectives, simple and compound subjects and predicates, and declarative and interrogative sentences.
13. Ability to spell plurals of words, divide words into syllables, and understand contractions.
14. Ability to use the dictionary correctly.

METHODS OF TEACHING LANGUAGE

The organization of the total curriculum determines how language is taught in Composite Elementary School, U.S.A. Four types of curricular organization were described in Chapter III: *separate-subjects curriculum*, *correlated curriculum*, *broad-areas curriculum*, and *needs-development curriculum*. Although variations of method within each of these patterns exist, the following examples show how language teaching fits into the four plans. If the school in which you teach organizes instruction on the basis of the separate-subjects curriculum, you will devote a daily period exclusively to communication skills. The language period maintains its identity in the correlated curriculum, but skills such as learning the meaning of synonyms, syllabication, or phonetic rules are studied during spelling and reading periods. In the broad-areas curriculum, language does not appear as a separate subject, but experiences of listening, speaking, writing, and reading are integrated and taught in one long block of time. The least common pattern of teaching language in the elementary school is the needs-development program, which originates from the basic needs of pupils and which is specifically

planned to meet each of these needs in order of the sequence or cycle through which children grow. This type of language teaching consists largely of providing individualized instruction, since pupils in the classroom will be at different levels of language competency.

COMMON FEATURES OF MOST PROGRAMS IN LANGUAGE TEACHING

Variations in method exist in language teaching, although the school may subscribe more or less to one of the four types of curriculum organization. In most of our elementary schools the following features are present in the language program:

1. Beginning in the third grade, a basic textbook is used.
2. Statements of goals and purposes in language teaching are generally quite similar.
3. Sequence of skills introduction and skills practice plans are practically identical in all programs.
4. Teaching methods progress from informal to more formal instruction as children go from one grade to the next.
5. There is some degree of integration of language teaching with other subjects in every type of instructional program.
6. A varying amount of time is spent on isolated communication-skills practice in each curriculum-organization plan.
7. The subject matter in language, comprising the teaching areas at each grade level, is the same for practically all schools.

TEACHING LANGUAGE IN THE LOWER GRADES

In the kindergarten and in the first and second grades especially, the quality of language teaching depends more on the teacher's ability, knowledge, creative ingenuity, and interest than it does in later grades, where basic textbooks provide ideas and suggested instructional activities. This does not mean that a basic text assures effective teaching; in any subject at any grade level, quality instruction is the teacher's responsibility. Neither do we mean that the third- through sixth-grade teacher should not be creative and plan a well-organized teaching program. We are saying that the lower-grade teacher must necessarily make use of individually distinctive techniques to produce an effective program in language. This teacher is more on her own in providing a program of language instruction than are other teachers.

WHAT DOES THE LOWER-GRADE TEACHER DO? Lower grade teachers take advantage of current situations in the daily life of pupils in guiding conversation and in encouraging discussion about games, trips, holidays, pets, toys, and related interests. The teacher reads good stories and poems to pupils and secures participation as children evaluate their own ability to retell a story or an event. The teacher sets a good example for proper language facility and guides pupils in the correction of poor.

speech habits. The teacher provides listening activities, helps pupils develop confidence in ability to discuss situations, sends pupils to other classrooms to ask questions and seek information for the class, includes guessing, rhyming, and singing games in the program, and encourages dramatization of stories. Audience situations are provided for pupils' verbal reports and dramatizations. Games and activities for distinguishing likenesses and differences in sounds are taught, and experience stories are written on the chalkboard by the teacher and read by the pupils.

As pupils develop greater proficiency in reading and writing, the language teaching is broadened to make use of these competencies. The lower-grade teacher gives individual help to pupils as they create stories on their own. Vocabulary development is encouraged not only during the time devoted to regular language skills but also during periods in reading, spelling, handwriting, show-and-tell time, social studies, and other subjects.

Finally, the lower-grade teacher helps pupils build a stronger foundation in language as she organizes teaching to include experiences such as these:

Additional reading in library books.

Inclusion of more difficult experience stories for the class.

Construction of group and individual booklets containing stories, poems, and creative writing.

Providing opportunity for free reading and searching for facts related to basic textbook stories.

Providing classroom libraries.

Building interesting book displays.

Planning regular visits to the public library.

Encouraging book reports.

TEACHING LANGUAGE IN THE MIDDLE GRADES

In the middle grades, basic pupil textbooks are organized into units, which provide stories and content material developed around topics of general interest to pupils at these levels. In most cases, each unit or chapter emphasizes one of the general skills of communication and provides questions, exercises, study topics, and suggested activities for review and maintenance of language skills previously introduced. For example, one current third-grade text lists these unit topics:

Planning Together

Giving a Party

Telling and Writing Stories

Enjoying Poetry

Giving Reports



LANGUAGE DEVELOPMENT IS ENHANCED THROUGH MOTIVATION TOWARD CREATIVE EXPRESSION.

Using Books Giving a Play²

Another series of basal textbooks lists topics for grade four as follows:

Summertime Is Fun
Traveling Around America
Adventuring With Books
Holiday Time
The Weather
Safe and Sound
Flying High
People Around the World
Poems We Like
Year-round Helps³

STIMULATING APPROACHES IN TEACHING LANGUAGE. Third- and fourth-grade teachers plan approaches to instruction of units by leading timely discussions about the topic to be studied; by securing exhibits, displays,

² Edna Sterling, Hannah M. Lingahl, Katherine Koch, et al., *English Is Our Language* (3), Second Edition (Boston: D. C. Heath and Co., 1957).

³ Matilda Bailey, Marcillene Barnes, and Edna M. Horrocks, *Our English Language—Good Times* (New York: American Book Co., 1956).

or collections which stimulate conversation; by helping pupils make bulletin boards; by helping to formulate plans for an educational trip or a class party; by displaying supplementary materials concerned with the unit; by reading good stories and poetry appropriate to the unit; and by helping pupils in dramatizations. Activities for stimulating interest are suggested in the teacher's edition of the basic textbook. However, the approaches to study must be chosen carefully; in many cases teachers may select additional or different ways of creating interest in each unit.

TEACHING PROCEDURES IN LANGUAGE FOR THE MIDDLE GRADES. The purpose of the initial activity or the approach to various areas of language study is to create a desire in the children to learn more about the subject. Some general techniques or ideas which you may wish to try in teaching language are listed in the following paragraphs. Teachers will recognize that some methods will work better than others, depending on the specific subject or skill to be taught, on the amount of time and resources available, on the needs of pupils in the class, and on the teacher's interest and ability in this subject. Hence, you must be able to choose the technique which best fits the job to be done. The ideas presented in the teacher's manual are recommended, especially for the beginning teacher.

DEVELOPING CONVERSATIONAL ABILITY

1. Permit pupils to discuss rules of good conversation; write these on the chalkboard.
2. Encourage small-group conversation related to pupils' interests.
3. Talk informally about class projects.
4. Discuss in an unstructured manner a TV program, a movie, a class skating party, or safety regulations in the school.

GIVING REPORTS

1. Discuss: "What do we look for in good oral reports?" Write pupil recommendations on the chalkboard.
2. Discuss: "What do we listen for in good oral reports?" Write pupil suggestions on the chalkboard.
3. Provide opportunity for panel reports, for book reports, for telling the class about an interesting experience, for reports concerning problems in caring for a pet, for telling original stories, and for reporting news of the school.
4. Help pupils evaluate oral reports.

DEVELOPING LISTENING ABILITY

1. Lead informal discussion with pupils on the topic: "Who Are Good Listeners?" As pupils suggest effective listening procedures, write them on the chalkboard. Review often.

2. Listen for correct English usage: correct verbs, correct helping words in verbs, and so on.
3. Listen for clear directions.
4. Listen for correct pronunciation, for audible speech, and for pleasing voice.
5. Listen for sounds in words, for initial and final sounds.
6. Listen to good poetry (help children follow cadence or rhythm).
7. Listen for complete sentences, for repetition of "uh" or "and."

IMPROVING DISCUSSION TECHNIQUES

Good discussion techniques require a great deal of practice. We feel certain that many adults have not yet mastered the art of effective discussion. (Perhaps some teachers, too!) The third- or fourth-grade teacher works with pupils on a continuing basis through some of these methods:

1. Help pupils understand what discussion is and how it differs from individual and group reports.
2. Help pupils establish standards for effective discussion techniques. The teacher's manual for your language textbook contains excellent ideas for you.
3. Use the list of criteria developed by pupils and teacher in evaluating group discussions.
4. Include for discussion in language such topics as these for grades three and four:

Good stories read in class.
 Meaning of new words.
 Feeding wild birds.
 Radio, TV programs, or movies.
 Good poems.
 Contents of a book.
 Plans for class activities.
 Plans for unit work.
 Oral reports given in class.
 Proper use of words and correct grammar.
 Proper punctuation.
 Book reports.
 Techniques for introducing people.
 Courtesy in using the telephone.
 Ways for improving written and oral reports.



USING CORRECT WORDS

1. Provide oral review for correct English usage. The teacher's role is to point out correct use of words in all instructional periods. This

is one of the pervasive arts in communication and one goal toward which the teacher strives in any teaching situation.

2. Provide regular study and review, both oral and written, for helping pupils distinguish complete sentences from incomplete statements. Planned exercises, activities, and sequential learning are suggested in the basic language textbook.
3. Give meaningful study and practice for pupils in:
 - Examining words and situations where capital letters are used.
 - Learning correct verb forms, such as *is, are; went, gone; grew, grown; did, done; gave, given*.
 - Finding out meanings for words which are spelled alike. Give illustrations of meanings, and instruct pupils to begin the use of the dictionary in checking word meanings.
 - Discovering through oral and written lessons and by use of the dictionary correct meanings for words spelled differently but with similar pronunciation.
 - In written work, during spelling periods, and in reading, help pupils find out how plurals of nouns are formed.

LEARNING TO PUNCTUATE SENTENCES

1. Help children discover where periods, commas, apostrophes, and question marks are used. Don't confine this teaching to the "language" time; talk about correct punctuation and draw attention to it in every subject area.
2. Use the suggestions and practice materials offered in the teacher's edition of the basic language textbook for development and evaluation of punctuation skills.

TEACHING LANGUAGE IN THE UPPER GRADES

The methods of teaching language in grades five and six are like those employed in the middle grades, especially for introduction or review of similar skills. For example, upper-grade teachers lead informal discussions in helping pupils become more effective in conversation ability, in developing greater fluency in verbal reports, in becoming more analytical listeners, in improving the art of discussion, and in evaluating oral and written English. Since most upper grade pupils make use of a basal textbook in language, review of skills introduced in previous grades is generally provided for pupils who need such reexamination and reteaching.

IDENTIFY PUPIL NEEDS IN LANGUAGE. The first teaching in these grades, then, should help strengthen needed language skills and abilities. Before you plan a program of reteaching, you must find out the achievement level of individual pupils. We recommend these ways for identifying specific needs:

- (1) If you take a teaching position in a school that maintains an effec-

tive evaluation program, you should receive an information folder containing achievement test scores and previous teachers' appraisals for each pupil. Study pupil test scores in standardized tests for language, noting carefully those areas identified as below grade. Try to locate skills in which the whole class may need review. If pupil test papers from the previous year are included in the folder, you should study individual tests and chart the needs of each pupil. If you follow this process carefully, you will have an individual diagnosis of strengths and weaknesses. In addition, tests and scores may reveal certain skills in language review which most pupils in the class need.

(2) If good records are not kept or if the school has no testing program, we recommend that you secure an acceptable test⁴ and administer it to pupils early in the school year. In fact, this testing ought to be completed by the second or third week of school. The test scores or levels of achievement are not as important to you as the kinds of errors or the weaknesses revealed by testing. The primary reason for testing is to find out what language skills, areas, and abilities need to be reviewed—need to be learned—before you push ahead to more difficult material.

(3) During the first few weeks of school, you can tell a great deal about the language facility of pupils through observation, listening, group discussion, teacher-made tests, and practice exercises suggested in the basic textbook. Your judgment, if it is based on planned and careful observation, should provide excellent supplementary information about your pupils. Talk with other teachers about pupils who appear to need special attention. Discuss individual cases with your school principal and study available accumulative records in the school office.

CHART A REVIEW PROGRAM. With information obtained from these three sources, you should be able to provide instruction in language which allows steady progress toward objectives proposed in a basal textbook series, toward goals and programs outlined in a school system curriculum guide, toward purposes which meet individual pupil needs and abilities. Regardless of the program followed, diagnosis of pupil needs is necessary if the teaching is to result in adequate language competency. In providing a ready reference for identifying these needs, you may wish to chart pupil achievement. This you may do by constructing a table such as the following:⁵

⁴ The following standardized achievement tests are among those which provide adequate diagnostic information: California Test Bureau, *California Achievement Tests, Complete Battery, Form AA*; California Language Test, *Form AA*; 5916 Hollywood Boulevard, Los Angeles 28, Calif. Cooperative Test Division, Educational Testing Service, *Cooperative Language Test*, 4640 Hollywood Boulevard, Los Angeles 27, Calif. Houghton Mifflin Co., *Iowa Every-Pupil Tests of Basic Skills, Basic Language Skills, Form C*, Chicago, Ill. World Book Co., *Stanford Achievement Test, Form 5*, Yonkers, N.Y.

⁵ In charting review programs, analysis of pupil test scores is recommended for every skills subject.

LANGUAGE TEST SCORES END OF FIFTH GRADE						
PUPIL NAMES	Language Skills					
	CAPITAL- IZATION	PUNCTU- ATION	ENGLISH USAGE	SPELLING	USE OF REFER- ENCES	WORD ANALYSIS
Blackman, Calhoun	4.8	5.2	4.7	5.9	5.5	6.0
Bushong, Marvin	6.7	6.3	5.9	5.6	6.8	6.3
Collier, June	5.4	5.3	6.0	5.2	6.4	6.5
Durr, Mabel	6.2	5.0	5.8	6.1	6.5	5.7
Harger, John	7.0	6.8	6.3	5.9	7.6	8.0
Hawley, Veronica	6.1	5.7	7.4	5.4	6.3	6.8
Mabin, Hugo	4.4	4.7	5.1	4.2	6.0	5.9
Van- Roekel, Frances	5.6	5.1	6.0	5.7	6.4	6.3

Scores on most standardized tests are shown by grade and month, with each school year counted as ten months. A grade equivalent of 5.8, for example, means fifth-grade, eighth-month level. Assuming that the pupils were tested at the end of fifth grade, we would expect those with normal achievement to score 6.0. Group scores indicate, in general, which language areas need particular attention. In the table given above, class scores in word analysis and use of references are good; the teacher probably would not need to plan intensive programs to strengthen these areas. However, scores for capitalization show that most of the pupils could profit by careful attention to this skill; and several pupils need extra attention in spelling.

Much evidence is provided by study of class scores; yet there remains the question of appropriate diagnosis of language test scores for individual pupils. If we look at the scores for Hugo Mabin in the table above, we can see that he is below grade in almost every area tested. But his scores do not tell us *why* he is below grade, nor do they help in outlining

a corrective program. You must study Hugo's tests carefully to find out what kinds of errors he is making—to learn where his mistakes are. Specific errors are not difficult to find,⁶ but once the diagnosis has been completed, building an individual instructional program in language skills is necessary if adequate progress is to be made by the pupil.

ADDED TEACHING PRACTICES FOR UPPER-GRADE LANGUAGE. Once you have identified group and individual needs in the language skills and have charted some ways of helping pupils, your initial teaching job in the upper grades has been completed. In addition to those teaching techniques recommended for the middle-grade teachers, the following practices are suggested for new language learnings in grades five and six:

1. Provide meaningful practice for more difficult choices in language usage: *taught-learned*; *who-whom*; *their-there*; *drank-drunk*; and so on.
2. Through discussion and critical examination, teach pupils to identify the different parts of friendly and business letters and to learn to address envelopes correctly.
3. Encourage pupils to practice recognition of parts of speech; test pupils frequently.
4. Expand factors necessary in presenting interesting book reports.
5. Provide adequate time for and give careful attention to dictionary use: purpose of the accent mark, selecting correct definition to match context, use of hyphen and dictionary symbols.
6. Refer to the teacher's edition of the basic language text in presenting and teaching upper-grade punctuation.
7. Discuss the meaning of explanatory and imperative sentences; give practice in identifying and writing these sentences.
8. Give ample opportunity for and check pupils' ability to proofread their writing.
9. Show pupils what a bibliography is; ask them frequently to prepare bibliographies of references used for reports or panel discussions.
10. Through the development of a class club, study committee and group procedures and learn to follow rules of order.
11. In providing a sequential program of English usage, follow suggestions in the teacher's manual in language: descriptive adjectives, simple and compound subjects and predicates, prepositions and prepositional phrases, plurals of possessive nouns, subject-verb agreement, interjections, conjunctions, and positive comparative, and superlative degrees of adverbs.

⁶ See Chapter 18, *Evaluating and Reporting Pupil Progress*, for detailed description of individual test score analysis.

12. Have pupils write rhymes, limericks, and poems; help in the selection of colorful and sensory adjectives.
13. In the upper grades, make certain to plan carefully for regular and meaningful review of all language skills studied.

LANGUAGE CONTENT IN THE ELEMENTARY-SCHOOL CURRICULUM

The content of the elementary language curriculum consists of skills and abilities from the communication arts: speaking, writing, language usage, spelling, punctuation, capitalization, dramatization, listening, use of references, and knowledge of dictionary skills. Language programs of most elementary schools follow basic textbooks, curriculum guides, or both. These instructional materials provide content organized so that easier activities precede the more difficult ones, and they include interesting and regular review exercises for pupil practice.

Important content areas in the language program should contain these fundamental learning skills.

LANGUAGE CONTENT FOR KINDERGARTEN AND FIRST GRADE

Ability to listen to and understand stories.

Improvement of conversational ability.

Ability to relate happenings or events.

Ability to print one's name.

Learning to associate words with things for which they stand—symbolization.

Discussing interesting situations, stories, movies, games, TV programs, and so on.

Identifying words that rhyme.

Dramatizing easy stories.

Creating stories and riddles.

Increasing oral and written vocabulary.

Telling stories in correct order of events.

Reading experience stories.

Reading easy material near the end of the first grade.

LANGUAGE CONTENT FOR SECOND GRADE

1. SPEAKING ACTIVITIES

Learning rules for relating happenings: take turns when talking; one person should speak at a time; speak so that others can hear you; speak clearly.

Telling news.

Saying rhyming words; noting likenesses and differences in sounds; developing auditory discrimination.

Telling short stories in sequential order.

Telling about books read at home; bringing the book to school to show to classmates.

Using the telephone.

Easy choral reading.

2. LISTENING ACTIVITIES

Learning rules for good listeners: listen carefully, listen until the speaker is finished, and look at those who are speaking.
Listening to poems, stories, discussions, and rhyming words.

3. WRITING

Writing names of friends.
Writing small and capital letters.
Making Christmas cards.
Writing safety rules.
Writing plans for class party.
Writing letters to a classmate who is ill.
Make a word book.
Make a weather chart.

4. DEVELOPING IMAGINATION

"Thinking up" or "making up" stories, poems, and riddles.

5. SPELLING

Words from stories.

6. PUNCTUATION AND CAPITALIZATION

Sentences begin with capital letters.
Use a period at the end of a sentence that tells something.
Use a question mark at the end of a sentence that asks something.
"I" is always capitalized.
Finding commas in stories.
Writing dates: May 14, 1960.
Days of the week are capitalized.
Names of cities begin with capital letters.
Finding capitals in titles.

7. ENGLISH USAGE

Practice: *have seen*
did
was, were
is, are
isn't, aren't
come, came
run, ran

LANGUAGE CONTENT FOR THIRD GRADE

1. SPEAKING ACTIVITIES

Review rules for speaking: Speak clearly, use correct English, stay on the topic, tell ideas in sequence, and do not interrupt while others are talking.
Give much opportunity for pupils to talk about interesting happenings at school, at home, during vacation times, and about pets, hobbies, and recreation.
Proper use of the telephone.
Give oral book reports.
Choral speaking.

2. LISTENING ACTIVITIES

Listen to reports and panel discussions and take part in conversation.
Listen to poems and stories read by classmates and the teacher.

3. WRITING

Learn to write home address correctly.
Write stories about holidays and club activities.
Write letters to friends.

4. CAPITALIZATION

Review: Sentences begin with capital letters.
Capitalize "I."

Capitalize days of the weeks and names of months.
Capitalize titles of books, stories, and poems.

5. ENGLISH USAGE

Review: *have seen*
did
was, were
is, are
isn't, aren't
come, came
run, ran

Practice: *saw, seen*
did, done
went, gone
gave, given
wasn't, weren't

6. PUNCTUATION

Periods are placed at the end of sentences that tell something.
Question marks are placed at the end of sentences that ask a question.
Apostrophes in simple contractions.
Abbreviations are followed by periods.

7. DICTIONARY SKILLS

Review order of alphabet; alphabetize words by first and second letters.

8. REFERENCE SKILLS

Using the table of contents.

9. SPELLING

Correct form for all words used in written material.

LANGUAGE CONTENT FOR FOURTH GRADE**1. SPEAKING AND LISTENING ACTIVITIES**

Review rules for oral reports.
Take notes for oral reports and panel participation.
Tell events in sequential order.
Avoid use of "uh," "and," "and so."

- Improve oral book reports.
- Make introductions.
- Take character parts in dramatizations.

2. WRITING

- Indent paragraphs.
- Proofread written material.
- Write letters for information.
- Write book reports.
- Write notes for oral reports or talks.
- Write stories and poems.

3. PUNCTUATION

- Period after Mr., Mrs., and Dr.
- Commas after "yes" and "no" at the beginning of a sentence.
- Periods follow declarative sentences.
- Question marks follow sentences asking a question.
- Exclamation marks follow sentences which express strong feeling.
- Correct punctuation form in letters and addresses on envelopes.
- Apostrophes in *don't*, *doesn't*, *isn't*, *aren't*, *I'm*, *that's*, and *they're*.

4. CAPITALIZATION

- Capitalize names of streets, cities, countries, states, persons.
- Initial study of capitalization in letters.
- Capitalize abbreviations for *Mr.*, *Mrs.*, *Dr.*
- Capitalize titles of a book.

5. ENGLISH USAGE

- Selecting descriptive adjectives for oral and written reports.
- Recognizing declarative, interrogative, and exclamatory sentences.
- Knowing and properly using nouns and verbs.
- Forming plurals of nouns.
- Selecting words from choices which have similar meanings.

Review:	<i>have seen</i>	<i>saw, seen</i>
	<i>did</i>	<i>have done</i>
	<i>was, were</i>	<i>wasn't, weren't</i>
	<i>is, are</i>	<i>isn't, aren't</i>
	<i>come, came</i>	<i>gave, given</i>
	<i>run, ran</i>	

- Practice: *haven't any* (incorrectness of double negatives)
- I, me*
 - a, an*
 - here, there*
 - taught, learn*
 - to, too, two*

6. DICTIONARY SKILLS

- Use of guide words.
- Alphabetize by first three letters of a word.
- Initial study of symbols and diacritical markings.

7. SPELLING

- Correct form for all words used in written material.

LANGUAGE CONTENT FOR FIFTH GRADE**1. SPEAKING AND LISTENING ACTIVITIES**

Tell stories relating interesting and enjoyable experiences.

Improve oral book reports.

Practice rules of order and conduct of meetings through class clubs or school organizations.

Take part in more difficult dramatizations than those tried in fourth grade.

Read original poems to the class.

Practice ability to give clear directions.

Choral speaking.

Study rhythm and beat in poetry.

2. WRITING

Create interesting stories from actual incidents.

Write friendly letters and letters requesting information; learn the parts of friendly and business letters.

Learn how to hyphenate words in written work.

Write reports from reference notes taken in research and study materials.

Write effective topic sentences in paragraphs.

Write original poetry.

3. PUNCTUATION

Review use of commas after *yes*, *no*, and *oh* at the beginning of a sentence.

Review contractions where one or more letters are omitted.

Review punctuation in the parts of a letter: heading, greeting, body, and closing.

Use of apostrophe in the word *o'clock* and in singular and plural possessive nouns.

Use of quotation marks, commas, and periods in sentences containing direct quotations.

Use of comma to separate words in a series.

4. CAPITALIZATION

Review use of capital letters taught in the fourth grade.

Review capitalization used in friendly and business letters.

Capitalize first word in a direct quotation.

Capitalize initials.

5. ENGLISH USAGE

Review: Ability to identify complete sentences.

Proper use of such words as these: *he*, *him*; *I*, *me*.

Verbs which need no helping word.

Meaning of declarative, interrogative, and exclamatory sentences.

Ability to identify nouns and verbs in sentences.

Agreement of subjects and verbs in relation to singular and plural.

Meaning of subject and predicate.

Identifying adjectives and adverbs in sentences.

Ability to identify topic sentences in a paragraph.

Recognition of common and proper nouns.

6. DICTIONARY SKILLS

Alphabetize words by first four letters.

Review use of guide words, diacritical markings, and symbols.

7. USING REFERENCES

Learn to locate information in the encyclopedia.

Begin the study of making an outline from reading sources.

8. SPELLING

Review words formed by adding endings and suffixes: *s, es, 's, tion, d, ed, ward, ness, less, ment, en, er, ern, ing, ly, ful, est.*

Review words formed by adding prefixes to the root word: *dis, for, im, in, mid, re, un.*

Correct form for all words used in written material.

LANGUAGE CONTENT FOR SIXTH GRADE

1. SPEAKING AND LISTENING ACTIVITIES

Review methods of telling events in sequential order.

Review ways of making proper introductions of people.

Discuss carefully ways to make stories and reports more interesting.

Use the school public address system to report school news and to present a play.

Present a television show for a school assembly.

Review rules for good telephone conversation.

Choral speaking.

2. WRITING

Write different types of letters; follow appropriate form.

Practice writing original poems and stories, parts of a friendly and business letter.

Edit and publish a classroom or school newspaper; write news, features, and human interest stories for the newspaper.

Write reviews of books.

Review and practice writing outlines for oral and written reports.

3. PUNCTUATION

Review all punctuation rules studied in fourth and fifth grades.

Find out when imperative sentences end in periods or exclamation marks.

Study and review: punctuation in direct quotations found at the beginning of, within, and at the end of sentences.

Use of the apostrophe in singular and plural possessive nouns and in such words as *won't, let's, she'd, he'll.*

4. CAPITALIZATION

Review rules for capitalization taught in the fifth grade.

Capital letters are used for important words in names of organizations, for names of regions, rivers, mountains, oceans, for nationalities, names of churches, names of religions, and for God.

5. ENGLISH USAGE

Review terms used in language, such as *indent*, *topic sentence*, *paragraph*, *direct quotation*.

Review and practice ability to identify nouns, pronouns, verbs, adjectives, adverbs, prepositions, conjunctions, interjections, subjects, predicates.

Differentiate between *action* verbs and verbs of *being*.

Study correct use of *a* and *an*; *rise*, *raise*; *rode*, *ridden*; *froze*, *frozen*; *chose*, *chosen*; *swam*, *swum*; *lie*, *lay*.

Identify compound subjects and predicates.

Identify adjectives used in positive, comparative, and superlative degrees

Study use of subject and object pronouns in sentences.

Learn meaning of *synonym*, *homonym*, and *antonym*.

6. DICTIONARY SKILLS

Review dictionary skills introduced and studied in fifth grade.

Learn to use the dictionary in checking pronunciation of words.

7. USE OF REFERENCES

Review use of table of contents and index.

Review and continue use of encyclopedia.

8. SPELLING

Correct form for all words used in written material.⁷

FROM THEORY TO PRACTICE

The fact that your daily program will contain a period especially for language study and language activities and experiences should in no way prevent you from teaching and giving attention to language skills in many other phases of the program. Children will speak, write, and listen in every activity; thus, each school activity is, in some sense, a language experience. During the various activities of the school day, language errors, incorrect usage, and language ineffectiveness must be corrected "on the spot."

You may have heard of the incident, probably fictitious but with a strong possibility of truth, in which a pupil was made to remain after school and write a hundred times on the blackboard, "I have gone." The teacher returned to the room later to find that the lad had completed his work and had left the following note: "Dear Miss Henry, I finished my

⁷ Material for language content in the elementary-school curriculum adapted from Matilda Bailey, Marcillene Barnes, and Edna M. Horrocks, *Our English Language, Grades 3-6* (New York: American Book Co., 1956).

work, and I have went home." If a teacher, having involved children in, for example, study and drill on the phrase "am not" in the morning language period, permits the pupils to go unchecked the rest of the day when they say such things as "I ain't done yet," she fails as surely as the boy who has "went home."

Obviously, teachers cannot check every child on each written and oral error made. This is neither desirable nor possible. There are times when corrections would be rude or would frustrate and embarrass a child. Life would be made miserable for children whose home backgrounds send them into the school situation with poor language habits, strong accents, or halting English, if every error were pounced upon. Correction, to be effective, must be made when the climate is right. Teachers need to develop a sensitivity to this right time.

We are now ready to consider some practical aspects of language under three general categories, *listening*, *speaking*, and *writing*. The place and time of applying the knowledge you take into teaching in these areas will have to be determined by you. It is not as important that you teach children use-of-dictionary skills in "language" class as it is that you teach them use-of-dictionary skills. Anyway, these skills will be taught, retaught, and reviewed in different subjects.

LISTENING

"You must learn to listen before you can listen to learn," a very wise person once said. This statement gives the teacher an assignment: children must be taught to listen.

"You mean I have to teach perfectly normal, healthy children, who have keen hearing ability, to *listen*?" you might ask. Yes, you will have to instruct children in the art of listening. This will be an essential part of your work with children, from kindergarten through sixth grade, from September through June. In general, children do not know how to listen well, critically, thoughtfully.

Children can look at us intently, not moving a muscle, as we talk to them, give them directions, ask questions, or give assignments. Yet they often do not actually *hear* a word that has been said. Oh, yes, they heard the sound of the speaker's voice, but effective hearing—listening—involves much more than this. That "much more" is what we have to teach.

One teacher told us about one of her listening experiences. Paul had been a rascal all day, doing everything he shouldn't do, and few of the things he was told or asked to do. Finally, having reached her limit of tolerance, the teacher whisked Paul into the corridor, and scolded him for a minute or two. "All the while I was scolding him," the teacher related, "he looked squarely and fixedly into my face. When I had finished

my lecture, I waited for Paul's reaction. All he said was, 'Mrs. Scott, I think you're pretty!'"

FIRST, LISTEN TO YOURSELF

One of the first steps in teaching children to listen better and more efficiently is to eliminate yourself as a possible obstacle, to correct and eliminate any habits, weaknesses, and procedures you may have which teach children to listen poorly. Some of these deterrents are:

1. Any element in your speech and voice which may make it difficult for children to hear you well or to understand you clearly. We refer here to talking too rapidly, too softly, or too loudly, enunciating poorly, phrasing badly, pronouncing carelessly, and so on.
2. Talking to children before getting their attention or after *losing* their attention. If this happens, make sure you determine *why* it happens.
3. *Not* doing what you say you will do.

"In just a minute we'll get drinks." (Drinks twenty minutes later or not at all. Teacher forgot.)

"If *another* child talks without permission, we will stop our game!" (Six children talk without permission. Game continues.)

"I've given this assignment three times already. (This alone should be a strong hint to the teacher.) This is the *last* time I will give it." (She gives it later, privately, to several errant children.)

Children soon learn that they need no longer listen the first two three times. The children decide to wait until the teacher raises his voice and *then* listen.

4. Permitting unnecessary noise, confusion, and distraction in the room.
5. Talking too much yourself. (Children eventually just "turn us off." They turn off their parents, too, for whatever solace that may afford us.)

You actually *can* listen to yourself if you determine to test yourself on some of these practices. Try for an hour, occasionally, talking very little in the classroom, giving needed direction by sign or on the black-board.

The best but most brutal method we know about is the use of the tape recorder. Set it up out of the way and turn it on as you conduct the class. Pay it little attention (if this is possible) for an hour. After the children have gone home, shut yourself in and play the recording. You may not want to let it play all the way through. But do, and play it again. When you actually hear yourself, hear how much you actually did talk (if you are like most of us), you will want to do something about it.

TO HELP YOUR PUPILS LISTEN

Help your children learn to listen to each other by teaching and encouraging them (and in some instances, demanding of them) in these ways:

1. Extending courtesy to the one speaking.
2. Helping children who must be listened to, *say and tell and read* their messages and material well and interestingly. Their messages must first be important and interesting. Children who give reports, read compositions, and tell personal experiences which are dull, poorly prepared, and boringly presented drive their listeners into protective shelters of non-listening.
3. Think through and evaluate your oral reading practice, especially in the reading groups. Oral reading done poorly is difficult to follow and to listen to. Adults, in a similar situation, would do just what children do—squirm, not listen, and become bored. Adults would walk out; the pupils have to stay and endure it.

In the reading group, it is not interesting for children to hear a story read orally that they have already read, under teacher assignment, before coming to the circle. Why *should* they listen?

4. Tape record a child's story, a "Telling Time" tale, or any other kind of oral presentation. Then permit the child to listen to himself, privately, having first discussed with him some aims for listening, such as determining if he thought listening to himself was enjoyable, if he thought he enunciated clearly and well.

We said "privately," for we have seen such playbacks that became pure entertainment for the rest of the class and humiliation for the child whose voice had been recorded.

5. A final suggestion for helping children learn to listen: from kindergarten through the sixth grade, children love to hear stories told by their teacher. Don't you believe that the record player has replaced you in this regard—that the television, stage, or film star on recording is more enjoyable than you. Especially will this be true if you prepare the story well and tell it interestingly and even dramatically, at least in spots.

Your pupils will enjoy listening to you if you read and tell stories to them with enthusiasm, expression, clarity, full use of voice possibility, and so on. Through stories you can do much to create in children better habits of listening. The story can be lots of fun for the teacher, and all the more enjoyable for her and for the children if she uses a few tricks that guarantee children's attention. Let us illustrate a skill we hope you already have by using a very simple example. None of us would do this to this particular poem, but the technique can be illustrated with this old familiar verse:

Mary had a little lamb,
 It's fleece was white as . . . (you'll *never* guess) . . . *snow!*
 And . . . (now listen to this) . . . everywhere that Mary went
 The lamb . . . (believe it or not) . . . was sure to go.
 It followed her to school one day;
 It was against the rule. (Why, of course it was!)
 It made the children . . . (guess what?) . . . laugh with glee

You get the idea. Interpolation, pauses, questions, comments, and the like, keep the children attentive. They wonder what you'll do next. They listen.

There are many good books, chapters, and articles on the subject of listening, some of which you may have seen and read. Such professional material will be very valuable to you. You need all the help you can get in teaching listening skills.

SPEAKING

In our opinion, a paradox found in almost any modern elementary-school classroom is this: Although today's children have more to talk about than ever before—have more experiences, go more places, see more things about which to talk and tell, live in more informal and talk-inviting classroom atmospheres—far too many children today speak and talk uninterestingly, carelessly, and ineffectively. If you do not readily accept this opinion, we invite you to go into an elementary school and visit the rooms looking for evidences of what we have said. Look for some of the speech faults the authors have noted in the hundreds of classrooms we have visited in connection with our assignments in schools across the United States. While telling a story or incident or giving an oral report, children fail to speak in complete sentences, or to end sentences and begin new ones. The following example of speaking, we regret to say, seems to be quite general:

Why, uh . . . I 'n my sister 'n my father he didn't have to work last Saturday because . . . for some reason, I don't know, we went over to my Aunt's and . . . she has this big hill in back of her house, I mean a ways back . . . and, boy, did we have fun . . . and—a—once my sister fell offa her sled right into a big snow drift and, I mean, she *really* got covered with snow . . . but . . . well, anyway, she got up 'n . . .

Oral language presents many problems to children. It presents similar problems to adults. Harold Spears writes:

The use of language is going to continue to be difficult, and consequently the teaching of it will continue to be a challenge. The use of language is difficult because it represents thinking, and clear thinking

has apparently always been something of a chore for mankind. The affairs of men seem to attest to this. In his oral expression, a person can say "ain't," or "damn," or some other pet word without thinking, but he can't go much beyond. The use of language represents communicating, and even the highly educated person seems to find difficulty in expressing himself to a colleague. To his vocabulary he adds his gestures, his grin, and his grimaces, but he still has trouble getting his own ideas across.⁸

Spears goes on to say, however, that there is a redeeming side to the picture—the results teachers are getting and the results which have been achieved. Our hope is that somehow we can do an even better job. We must, in our opinion, do a better job in developing in children more desirable, more effective, and more successful oral use of the English language.

Perhaps we can help you in your efforts to develop better oral English in your students if we give some reasons why children do not develop good speaking habits, why they acquire poor talking habits, and why so many of them find it difficult to speak easily and successfully.

SPEAKING⁹ SKILLS BEGIN IN THE KINDERGARTEN

The development of skills in speaking actually begins in the home. There, also, begin speech errors and poor habits of speaking. When the pupils arrive at school, in either kindergarten or first grade, many of their good or bad speech patterns, habits, and practices are set. If the school could start before any speech faults developed in the children's oral expression, our task would be simpler.

But here are the kindergarteners, speech patterns and all, wanting to talk all the time or refusing to talk at all; talking quite well or talking with much difficulty. The school takes over from the home the greater responsibility, now, for further growth in speaking ability and speaking development.

Speaking skills begin in the kindergarten, and some of the pupils' difficulties in oral expression have their origin here, we believe. The school and the teacher cause some of these difficulties by practices and procedures which ought to be eliminated. One of the chief spawning grounds is "Telling Time"—a very desirable and worthy activity (see page 9), but one in which poor habits of speaking can easily be formed. Among the bad practices in "Telling Time" which work against good speech development is that of permitting tellers to talk too long and to say too much. We need to start kindergarten children with and hold them to one easily composed and well-spoken sentence. We should keep them within this limitation until they are able to speak easily, dis-

⁸ Harold Spears, *Improving the Supervision of Instruction* (Englewood Cliffs, N.J.: Prentice-Hall, 1955), p. 310.

tinctly, and comfortably. When they are successful, then they can go on to two and three and so on.

Permitting and thus encouraging kindergarten children to ramble on at length, producing a jumble of disconnected thoughts, torrents of carelessly spoken words, and little in the way of listenable comment should be discouraged. Children standing before their peers, not knowing what to say next but still wanting to hold the floor, embarrassed and self-conscious, not having organized what they wish to say—these are situations that encourage poor speech. If these situations can be avoided, children will be better served.

So we say that teachers actually help children create poor habits of speaking when they permit children to “run amok” in Telling Time—or any other time. One sentence, well spoken, first. Then more.

Candy’s progress may go something like this, especially in Telling Time, as she stands before her classmates, leaning against her teacher, doll in hand:

Teacher: “Oh, Candy, what did *you* bring to tell about?”

At first: Silence. Head down. No words. Finally sits down.

Later: “Dol—ly”

Still later: “My dolly.”

Even later: “I brought my dolly.”

Finally: “My Mother gave me this doll for my birthday.”

From silence at first to a full, well-spoken sentence may have taken weeks or months. But finally Candy says one sentence. This accomplishment must be secured before she goes to two sentences.

Timmy’s progress, conversely, may proceed along this route:

Timmy, in front of classmates, beaming, ready, full of his words: “My Grandma gave me this shirt. (Pause) You know something? (Can’t think of anything more to say about his shirt. Has the floor and has the attention of his contemporaries.) My Daddy’s going deer hunting and when I get big, I’m going to get me a big knife and my brother is going camping this summer and maybe, at Christmas time . . .” Whoa, Timmy! Hold everything!

Note here the beginning of erratic thinking, or no thinking at all. His mouth is wide open and he has no control of all that is spilling out. We see the beginning of pointless chatter, of a habit of running thoughts and sentences together. He is getting a privilege that he has not earned. He is not entitled to keep the floor, and the teacher should not let him continue. Timmy needs restricting. He needs speaking discipline until he has that first sentence under control.

Each child needs to learn to say comfortably and correctly one complete sentence. When each has accomplished this, he should be permitted and encouraged to try for two, but they should relate to the topic.

Watch that Timmy! He might try something like this on his two-sentence plateau:

"This shirt came from my Grandma. I think I'll be a bear hunter when I get big!"

You can see that individualization of instruction, like the formation of good speech habits, begins in the kindergarten.

ADDITIONAL WAYS TO IMPROVE SPEAKING SKILLS

1. Interest the children early in the exciting world of words. There are many wonderful words, all ours to express to others exactly what we want to say. They are ours just for the learning. Children, led through the wonderful garden of words, will, for example, title stories more excitingly and interestingly than merely "My Trip to Chicago." More likely such titles as these will grace their stories:
"Fun in the Windy City"
"Chicago—City of Friendly People"
"I Saw Chicago!"
2. Talk *to* children rather than *down* to them, but be careful not to talk *over* their heads. Let them reach for vocabulary rather than stoop to it. We should add to the treasury of children's vocabulary through the level of conversation we use with them. In a first-grade room, for example, a welcoming committee of one showed us about the room. "This," he said naturally and easily, "is our aquarium. We have two neon tetras left. Over here is a toad. He's down in the dirt. We think he is hibernating. This is a cecropia moth . . ." The teacher of this class was helping children enlarge and enrich their vocabularies. They were reaching, though the words were not beyond them. After all, what *else* would you call an aquarium? neon tetras? cecropia moths?
3. Diversified opening exercises and activities offer opportunities for talking, for describing, for commenting, for informing, for telling, and for explaining, but not for pointless rambling. Reading and telling the news of the day is one splendid activity. Learning to be comfortable before others, to speak with or without notes or copy, developing poise—these are but some of the skills which can be practiced. The news also provides a ready-made stage on which creative thinking, critical thinking, and oral analysis can take place. Merely hearing the news should not always be the end. What about the news? Encourage discussion, reaction, critical thinking, play of emotion, and so on as each relates to or springs from the news stories.
4. Permitting children to make presentations, to tell or read stories, or to show exhibits and make announcements to other rooms will encourage the growth of speaking skills. Going to other rooms or groups should not be sanctioned until the speaker has met certain



DRAMATICS AND ORAL PRESENTATIONS IMPROVE SPEAKING SKILLS.

standards. Merely bringing a small, live crocodile to school should not earn for a pupil the privilege of going about the building showing the reptile and, perhaps, mumbling a few words about it. The right to present oral talks and descriptions to others is not earned by the mere possession of something, but by the reaching and attaining of acceptable skills of presentation.

5. Practice by children in giving directions promotes skill attainment in speaking, as well as skills in actually giving directions. During the many years the authors have traveled about and regularly been lost, we have become acutely aware of the inadequacy of adult Americans in the art of giving directions.

Teach your pupils how to give directions (and, in listening, how to take them) clearly, specifically, correctly. To bring home the fact that giving directions requires skill and care, ask the children some day to give you directions for writing "Good Morning" on the blackboard. You need to make the experience a bit ludicrous and far fetched, but you will make the point more dramatically in doing so.

Begin by sitting in a chair and asking for directions. When you are asked to go to the board, don't go. Ask, "How?" Make them get

you there. They will have you going every which way as they misdirect you.

When you reach the chalkboard (if you ever do—you may end up out in the hall), do not pick up the chalk without directions. Then, in response to a child's "Pick up the chalk," pick it up with the wrong hand. You will all have fun, but you will make your point. Follow this up with serious direction-giving activities. Do this at various times throughout the year.

6. "THIS IS THE OPERATOR . . ."

Children get practical experience in speaking (and tremendous feelings of importance!) by answering the classroom telephone. Older children often assist in the school office, especially during the noon break, and answer the telephone. Telephone manners and courtesies and proper telephone habits are realistically and practically taught in this manner.

7. THE PUBLIC ADDRESS SYSTEM—ANOTHER SPEECH TOOL

The public address system can be used in developing good habits of speech. This medium offers unlimited opportunities.

8. "COME, LET ME SHOW YOU OUR SCHOOL"

Some schools have pupil guides to show visitors about the building. These boys and girls must be able to talk easily, know the courtesies to be shown, and be able to think on their feet. Although they may have set speeches about the various features of the schools, they must be able to converse intelligently and adequately when they are asked to answer questions they haven't prepared for.

MEMORIZATION . . . A WANING SCHOOL EXPERIENCE?

Presenting memorized materials affords additional opportunities for the development of speaking skills. Our observation is that children in school today are having far fewer experiences in memorization than the children of the last generation. An elderly friend, having the same regrets as the writers, recently commented to us in a letter, as follows:

Another anniversary of the giving of Lincoln's *Gettysburg Address* has come and gone. I was reminded, as I reread the speech today, how I toiled and sweated over it as a country-school pupil years ago. We had to memorize every last word of it! I can still say it, with a little prompting. I don't believe my teacher was very wise in demanding that we all learn that speech by heart, for it was meaningless to us, really, and not at all interesting. In those days, though, we memorized everything in sight! Preambles to state and national constitutions, the route of the circulation of the blood, all 206 bones of the human body (are there more bones now?), the 93 counties of the state and county seats, the presidents and the vice presidents, in order, the then 62 nations of the world and their capitals. I remember at milking time practicing some memory work rhythm to the "ping-ping" of the stream of milk hitting the bottom of the milk pail!

Certainly memorization was overdone in my time. But from what I see and hear, and from being around some of the Grand Kids, I wonder if the school of today hasn't gone too far the other way, practically eliminating memorization experiences completely? This would be typical of the way we often do things in American education . . . when we change, we go all the way!

We would not like you to require your children to memorize things merely for the sake of memorization. As in any classroom activity, memorization should spring from a desire or from a need. Memorization can be fun; it can be interesting. Children still love to do it, and they do it so easily. Give them some opportunity for it. Some possibilities are:

1. ENGLISH AND DRAMATICS

- a. Learning parts in a play or dramatized story.
- b. Memorizing for ease of expression, diction, and so on. (Poems, stories, anecdotes.)
- c. Memorizing portions of poem in choric verse or verse-speaking choir. (*A Visit from St. Nick*, *Pied Piper of Hamelin*, *Village Blacksmith*, *Hiauatha*, *The Duel*.)

2. OPENING EXERCISES

- a. Memorizing apt proverbs and sayings to be given by different pupils each morning.
- b. Memorizing suitable poems for enjoyment to be given by individual pupils. (On a snowy morning, Rachel Field's "Snow in the City.")

3. PRACTICAL, NEEDED INFORMATION TO MEMORIZE

- a. Telephone numbers. (Fire, police, father's business, school.)
- b. Rules of arithmetic, spelling, and so on.
- c. Sizes of shoes, clothing.
- d. Birthdates and anniversaries of family members.

WRITING

IT BEGINS IN THE FIRST GRADE

Just as we urged the building of one good, well-delivered spoken sentence before children speak two, three, and so on, so we urge you to begin first grade writing with only *one* sentence. When children have a thorough understanding of what a sentence is and can write a satisfactory sentence, then teach them to write two. When the one-sentence concept is clear and when a child has written enough single-sentence papers and "compositions" to enable him to write easily and understandingly *one thought*, the time is right to begin writing *two* sentences. Not before.

Similarly, children should not be made or permitted to attempt writing several paragraphs before thoroughly understanding what a paragraph is and how to write just one successfully. Only one paragraph at first, then two.

THE FRIENDLY LETTER

Earlier in this chapter, many kinds of needs for writing are listed. Among them is "Letter Writing." This is one activity that is carried on in every grade in the elementary school. The friendly letter is introduced in the kindergarten, perhaps when the teacher writes letters dictated to her by the children thanking the custodian for taking care of the fish during vacation. Each teacher in later grades adds dimensions to the activity.

How perfect it would be if the occasions for writing letters were created by the children or child because of a need or desire to write a letter. This is not beyond the realm of possibility. We suspect, however, that much of the letter-writing instruction elementary children get is scheduled (maybe for a week from Wednesday, or "right after we finish with *Telephone Courtesy*") and that pupils will suddenly find themselves having to write a letter, desire or not.

Let's not forget that the friendly letter *could* be learned about, taught about, not on schedule but when there is a need to write letters to thank someone; to ask Mr. Brown, who knows a great deal about Latin America, to come and talk to the class; to an absent class member; or to parents about a proposed field trip. The possibilities are nearly unlimited.

THE BUSINESS LETTER

Although we have stated that the business letter should be taught in the later elementary grades, not much time need be spent on this type of letter.

One reason is that children's needs to write formal business letters are very slight. Even in requesting materials or asking the policeman to come and give a talk, the friendly letter is more fitting. Don't you believe that the business man in a company or concern would rather receive letters from children reflecting the unsophistication and naturalness of boys and girls than a cold, stilted business letter?

In the secondary-school program, the business letter comes into full bloom. It makes more sense to high school students and is more likely to be needed and used by them. It seems unnecessary that much time and attention, therefore, be given the business letter in the elementary language program.

We once heard a business man plead with an assemblage of teachers to spare businesses from the deluge of children's letters requesting information, materials, brochures, and other materials designed and issued primarily for adult consumption. We agree that children should

not write for materials merely to have the experience of writing a letter. We have known obliging companies to send children huge amounts of advertising material, travel information, and booklets and pamphlets which meant little or nothing to the children and which were soon thrown into the waste basket. (According to Northwestern Life Insurance Company, it costs a company about \$2.00 to answer a letter.)

If there is a real need for materials and if the teacher believes the company would like the schools to have this material, such letters are defensible. The watchword for teachers should be, at all times, "discretion."

ADDRESSING THE ENVELOPE

If we were to inspect the letters in the mail bag of any letter carrier just starting out on his route, we would be shocked by the number of errors in punctuation, capitalization, abbreviations, usage, and form. If each member of the group you are in now would, without any discussion, draw an envelope and address it, you will discover, upon comparison, many variations and mistakes.

Here, according to most authors, is a correctly addressed envelope:

W. C. Almont
130 Elm Court
Portland 45, Oregon

Mr. Alfred C. Burgess
1284 South Main Street
Wheeling 6, West Virginia

Common errors made by both children and adults in addressing letters include:

1. Omitting the period after Mr., Mrs., Dr., and other abbreviations. (Street and city and state names should be written in full.)
2. Incorrect punctuation of the zone number, now a very important factor in many addresses.
3. Omitting the comma after the name of the town or city when the

name of the state is written on the same line, and wrongly placing a comma after the town or city when the state name is written a space below.

4. Incorrect abbreviations, and abbreviating words for which there is no accepted abbreviation ("Mkt." for "Market," "Pte." for "Point," "Ct." for "Court"). Originality in such things is no virtue.

THE CLASS OR SCHOOL NEWSPAPER

Creating, writing, publishing, and distributing a newspaper can be a worthwhile and fruitful experience, one which provides opportunities for creative writing, for using and furthering language and spelling skills, committee work, learning more about organizing and planning—opportunities for growth in almost any subject of the curriculum.

Creating a newspaper requires skillful preparation, planning, and direction on the part of the teacher. Aims and objectives must be well thought out and constantly kept in sight. If the newspaper is to go into the home—and it usually is taken home—it becomes a messenger of the school and a report card of the school and teacher. The newspaper must be free from grammatical blunders, incorrect punctuation, spelling, paragraphing, and the like. The quality and nature of the items and stories in the paper must be checked carefully.

Should you want very much during your first year to undertake a newspaper publishing project, talk over the idea with your principal before mentioning the possibility to your pupils. Don't be surprised if you find your principal a bit hesitant about giving you his blessing. If he encourages you to go ahead, let him see the material, the dummy, and the final copy before you go to print.

Listening, writing, speaking—each one important, each one a vital part of most of the activities children will engage in all day long, year after year. We cannot do too much as teachers in these three areas, for can it ever be said that some children write too well? speak too interestingly? listen too flawlessly? We can never say, "Well, now that I have taught them to listen, write, and speak successfully, I can go on to something else."

SUMMARY

Language or English may be taught as a separate, formal subject, or it may be included in the total language arts program.

In language, we provide experiences in and develop techniques for *writing, listening, and speaking*. In the content section of this chapter are identified some activities and approaches from which pupils' skills and excellence will come.

The authors believe excellence and success will come earlier to children if the teacher holds to high standards of achievement in this area. To permit children to speak, write, and listen carelessly—to establish undesirable habits in these areas—is to do them an injustice. If they are *not* permitted to establish careless habits in the first place, half the battle is won.

PROBLEMS AND DISCUSSION TOPICS

1. Examine the following principles of teaching language:

Language serves everyday needs of children.

Language is necessary in every subject taught in school.

Language skills are learned best when practiced in meaningful situations.

Language skills are best developed when provision is made for guided practice in new learning and maintenance review of previous learning.

Language development is enhanced through motivation toward creative expression.

Language instruction must take into consideration individual needs and abilities.

Language is necessary and significant for achievement of social competency.

For the grade you hope to teach, list as many important activities as you can and show how teachers may plan instruction in order to better serve the objectives of each principle above. In other words, what kinds of activities should the teacher plan in trying to meet these purposes of language?

2. What are some common characteristics of *any* language program in the elementary school?
3. Discuss appropriate teaching techniques for stimulating language learning by pupils. Divide the discussion time among these topics:
 - Developing conversation ability
 - Giving reports
 - Ability to listen
 - Improving discussion techniques
 - English usage
4. How can the elementary teacher identify the language needs of his pupils? Outline needs under broad headings and in sub-topics specify some methods for locating individual pupil needs.
5. Prepare a five-minute oral report for your class on the most significant areas of language instruction for the grade you are most interested in teaching.
6. During your student teaching evaluate yourself against the criteria suggested in pages 227–228.

7. Visit an elementary classroom to test the truth of this statement:

Although today's children have more to talk about than ever before—have more experiences, go more places, see more things about which to talk and tell, live in more informal and talk-inviting classroom atmospheres—*far too many children today speak and talk uninterestingly, carelessly, and ineffectively.*

Report your findings to the class.

8. List some specific methods which the kindergarten teacher can use in helping the five-year-old improve his speaking habits and skills.
9. Discuss the values and the disadvantages of memorization by elementary pupils.
10. Can you suggest criteria for judging the merits of an elementary-school newspaper?

WHAT WOULD YOU DO?

You invite the class to write a story. "Just let your thoughts pour out upon the paper," you say, "and don't worry about misspelled words, punctuation, and so on. After you have the story the way you want it, I will help you correct the grammar and spelling before you rewrite it."

You are not aware that Max took his manuscript home. A week later, he brings his story to school—printed in the company newspaper his father edits. It has been printed as Max wrote it, errors (and they were legion!) and all, with due credit given school and teacher! The long, long story is gruesome. It is all about werewolves, monsters (Max's drawing of a horrible monster appears on the cover), fiends, and tombs. Max is tingling with success. His peers elevate him to stardom.

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CHAPTER 12

TEACHING HANDWRITING

Handwriting has been included as a subject in the schools for centuries. Research studies prove that the general quality of handwriting has decreased over the years.¹ The relationship between quality of handwriting and the increase of printed material will be explored later in this chapter.

In our schools, the total curriculum consisted of handwriting, along with reading, spelling, arithmetic, and religious education. Methods of teaching handwriting in colonial schools varied with the instructor's ability, the type of training he had taken, and his interest in the subject. Not until about the middle of the nineteenth century was there much emphasis on improvement in handwriting. A little more than a hundred years ago, teachers were trained in the Spencerian method, and this type of handwriting became the standard in elementary schools. Pains-takingly, pupils copied intricate letters of the alphabet in cursive writing. Many samples of handwriting in schools of a century ago are available for examination; in your college library or in your great-grandparents' albums, you can find Spencerian writing with its variation of line and its artistry.

"PUSH AND PULL"

In an effort to improve the legibility and speed of handwriting, other methods of teaching replaced the slow Spencerian style. As late as the 1920's, the "muscular" method was most common in the elementary schools. In this technique the arm controlled the pen (*always with pen and ink!*) and the forearm muscle the movement. The student who moved his fingers or hand was likely to be reminded of the importance

¹ See the following studies: Harry Tenwolde, "A Comparison of the Handwriting of Pupils in Certain Elementary School Grades 'Now and Yesterday,'" *Journal of Applied Psychology*, XVIII, June, 1934; Albert Grant and Margaret M. Marble, "Results of Cincinnati Handwriting Survey," *The School Review*, XLVIII, Nov., 1940; and Frank N. Freeman, "Survey of Manuscript Writing in the Public Schools," *Elementary School Journal*, 1946.



HANDWRITING BEGINS IN THE KINDERGARTEN.

of the forearm by a smart crack on the knuckles from the teacher's pointer.

The teacher's purpose was to develop uniformity in the quality of cursive handwriting. Beginning in the first grade, each classroom had its familiar row of "sinister soldiers"—a scale of model letters across the front of the room over the chalkboard—to be copied exactly in all written work. There was a daily period devoted to skill in writing which was almost always preceded by a "warm-up" exercise requiring several lines each of "ovals" and "push-pulls." This was followed by copying a lesson from a pupil manual. The degree to which the pupil succeeded in reproducing manual style copy determined his success and his grade in handwriting. Many of the larger school systems employed handwriting supervisors, who worked with a group of handwriting specialists. These special teachers traveled to designated schools daily and taught muscular handwriting in various classrooms. This method taught most pupils to write rapidly in a legible manner.

THE ADVENT OF MANUSCRIPT HANDWRITING

It is generally conceded that the teaching of manuscript writing in the elementary schools was introduced in the United States in Horace Mann and Lincoln Schools, Teachers College, Columbia University, in the early 1920's. By this time manuscript writing had replaced cursive

handwriting in some of the primary schools in England. It was introduced in elementary schools of Winnetka, Illinois, as early as 1924. The proponents of manuscript writing claimed that, since pupils learned to read print, both reading and handwriting would be improved if handwriting instruction were in print, too.

Manuscript handwriting is extremely popular, especially in the first and second grades. Hunnicut and Iverson say, "Manuscript handwriting has made its way into the primary grades so positively and with such a weight of scientific evidence in its favor that a discussion of its merits at that level is no longer necessary."² Freeman³ found that 83.3 percent of American public schools start children in manuscript handwriting and that 96 percent of the schools do not begin cursive handwriting until the third grade. Manuscript handwriting is easier to learn than cursive, it is more fitted to the neuro-muscular co-ordination of primary pupils, it facilitates the learning of reading and spelling, it can be written just as rapidly as cursive handwriting, and many educators claim that it satisfies the desire of the young pupil to write.⁴

TEACHING CURSIVE HANDWRITING

If you are assigned to teach in the middle- or upper-elementary grades, you will teach the cursive method in handwriting. In Composite Elementary School, U.S.A., you probably will have some kind of resource to help you in your teaching. This may be a handwriting guide developed by teachers in the school system, or it may be an adopted handwriting manual from a co-ordinated series for each grade. These materials provide suggested teaching techniques for diagnosing common handwriting errors, recommended remedial practices, and in some cases, a graded scale for use in analyzing the legibility of the pupils' handwriting.

The goal of cursive handwriting instruction in the elementary school is legibility and adequate speed. Even though there is widespread use of the typewriter in our times, pupils need handwriting. The teacher in today's school does not strive for uniformity in all pupils' handwriting but rather for the development of a legible style by each pupil and mastery of it so that he is able to write rapidly. Teaching of handwriting should be integrated with written assignments in other subjects. In other words, every written lesson becomes also a handwriting assignment.

² C. W. Hunnicut and William J. Iverson, *Research in the Three R's* (New York: Harper and Brothers, 1958), p. 266.

³ Frank N. Freeman, *op. cit.*, pp. 375-380.

⁴ For research evidence supporting these contentions, see: Prudence Cutright, "Script-Print and Beginning Reading and Spelling," *Elementary English Review*, XIII (1936), pp. 139-41; Carleton Washburne and Mabel V. Morphett, "Manuscript Writing—Some Recent Investigations," *Elementary School Journal*, XXXVII (1937), pp. 517-29; and Gertrude Hildreth, "Comparative Speed of Joined and Unjoined Writing Strokes," *Journal of Educational Psychology*, XXXVI (1945), pp. 91-102.

EFFECTIVE HANDWRITING TEACHING IS INDIVIDUALIZED TEACHING

"Generalized" teaching techniques or instruction to the whole class in rather routine fashion may help you "get through a skills period," but this method of teaching doesn't get to its proper target—correcting errors made in handwriting by individual pupils. You should be familiar with a study of the most common and careless handwriting mistakes made by pupils.⁵ But knowing common errors is not enough; you must analyze each student's writing in order to see what mistakes he is making. Your responsibility for helping the student to correct his handwriting errors begins when you find out what his mistakes are.

The next step is providing individual instruction so that the pupil will make steady improvement. Hunnicut and Iverson offer these suggestions to the teacher for helping pupils improve handwriting legibility:

1. No one characteristic of handwriting exists separately from other characteristics, but they are interrelated in the handwriting process. In any attempt to improve the quality of handwriting, it is necessary to keep clearly in mind the fact that one characteristic is dependent on others. Letter formation is closely related to spacing, slant, alignment, and weight of line. Any change in one characteristic is accompanied by a corresponding change in the others.
2. Since letter formation is the most important factor in determining legibility of handwriting, this aspect of writing should receive the greatest emphasis in teaching children to write.
In recent years handwriting instruction has emphasized the use of simplified letter forms, free from flourishes and extra strokes, containing only the essentials of the letters.
In teaching children to write, the development of good letter formation should be the chief outcome, and the development of other characteristics—slant, alignment, spacing, quality of line—is important only as they contribute to good letter formation.
3. Pupils should be taught to use a compact type of writing, though not at the sacrifice of good letter formation. A medium or narrow spacing between letters is desirable. There need be no concern regarding the size of paper ruling ($\frac{5}{8}$ " and $\frac{1}{4}$ ") in its effect upon legibility, nor does evenness of alignment demand much emphasis.
4. Teachers should emphasize regular slant as an important aspect of correct letter formation for increasing legibility.
5. Since there is no clear-cut case for either the heavy or the light pen, it is probably best to use a pen of medium weight.
6. Handwriting has social value only as it provides a more or less permanent record which can be read by someone. Children should be made aware of the need for producing a legibly written record and of the factors contributing to legibility.⁶

⁵ T. Ernest Newland, "An Analytical Study of the Development of Illegibilities in Handwriting from the Lower Grades to Adulthood," *Journal of Educational Research*, XXVI (1932), pp. 249-58.

⁶ C. W. Hunnicut and William J. Iverson, *op. cit.*, p. 282.

HANDWRITING IN THE KINDERGARTEN

Kindergarten children will learn to print their names during this first year of elementary-school experience. More writing than this may be included in their program; the children may actually learn to write all the letters of the alphabet, write the numbers 0 through 9, write such words as "window," "door," and "Mother," depending on the dimensions of the kindergarten reading readiness program. Since it is in kindergarten that most children take their first steps in writing, the teacher must make certain that the formation of whatever letters the child learns are as correct as can be expected of these little hands.

BIG PENCIL OR NOT?

Some teachers are beginning to question the use of the large, "primary" pencil as the exclusive pencil for kindergarten and first-grade use. We do not believe this pencil matter need be an either-or proposition. Those children whose muscular development indicates a need for using the large pencil should use it. If there are pupils who can use an ordinary pencil with ease and success, there should be no restrictions.

ALL CAPITALS OR NOT?

The writing done by kindergarten children will most assuredly include the printing of their names. Some kindergarten teachers teach the children to use all capitals:

HESTER

Children will often come to kindergarten with ability to write their name. Almost invariably, parents teach the all-capital way.

It is our belief, supported by kindergarten teachers, that, from the very start children should use the capital letter only for the beginning of each of their names. This they will do all of their lives, except for the occasional printing of a name here and there. So we would prefer to have the name written like this:

Hester

No convincing evidence that the all-capital method is either easier or more desirable has been brought to our attention.

HANDWRITING IN GRADE ONE AND TWO

In grade one formal handwriting is first taught in earnest. Here all the alphabet, as well as all the numerals, will be introduced or reintroduced. Manuscript writing will probably be used in the school in which you teach.

Before you begin to teach the alphabet, determine exactly *how* the letters are formed in your school or school system. For there is a difference in the way some manuscript letters are made:

k or k, a or a, g or g, z or z, y or y

The suggestions of Hunnicut and Iverson listed earlier in the chapter pertain to manuscript handwriting in these grades as well as to cursive in the middle and upper grades.

HANDWRITING IN GRADE THREE

The transition from manuscript to cursive writing is generally made in grade three.⁷ Not every child, however, has to make the change, or even should make the change in this grade. Some children may be ready for the transition during the last part of grade two; some may not be ready for the change until sometime in grade four. As in reading and other subjects, there should be a readiness for the next step. In writing, it is very difficult to identify this readiness; sometimes it is not possible to know just when to start cursive handwriting for a child. A child should be writing manuscript easily and legibly. Children who write manuscript poorly and laboriously are not ready for the more difficult cursive. There is some research which seems to indicate that some children should *never* be started.

Our advice is this: do not rush the child into cursive writing. Though desirable, learning to write cursively in third grade is not vital to a child's success in that grade. Individual differences should be especially honored at this juncture.

HANDWRITING IN GRADES FOUR, FIVE, AND SIX

The formal teaching of handwriting should continue in these grades. It is now not a matter of teaching what letters look like or how letters and figures are made. Instead, the teacher's role now becomes one of encouragement, supervision, correction, and insistence on quality and correctness. Continued use of manuscript for printing, lettering posters, titles, and the like should be encouraged.

Though a major amount of handwriting attention is now given to its correlation with all writing, still there should be regular writing periods. As suggested earlier, these periods should be times during which each pupil addresses himself to his own handwriting needs and improvement.

⁷ See "The Transition from Manuscript to Cursive Writing," Frank N. Freeman, *Elementary English*, XXXV (Oct., 1958), pp. 366-372.

Content remains the same in these grades, in fact, throughout the elementary-school handwriting program.

FROM THEORY TO PRACTICE

Handwriting is still a very important aspect of the elementary school curriculum, and it is a subject not always taught well. *Important* because being able to write and write legibly and easily is still a necessity. *Not always well taught*, we conclude, because it often is not accorded the importance it deserves, especially in the middle and later elementary grades.

CHILDREN'S HANDWRITING NEEDS SHOULD BE ANALYZED

Much of the teacher's job in handwriting instruction involves analysis. Children's handwriting should be constantly observed to see where success is being achieved and where improvement is needed. To help you in this analysis, we have included here an actual paper as an example.

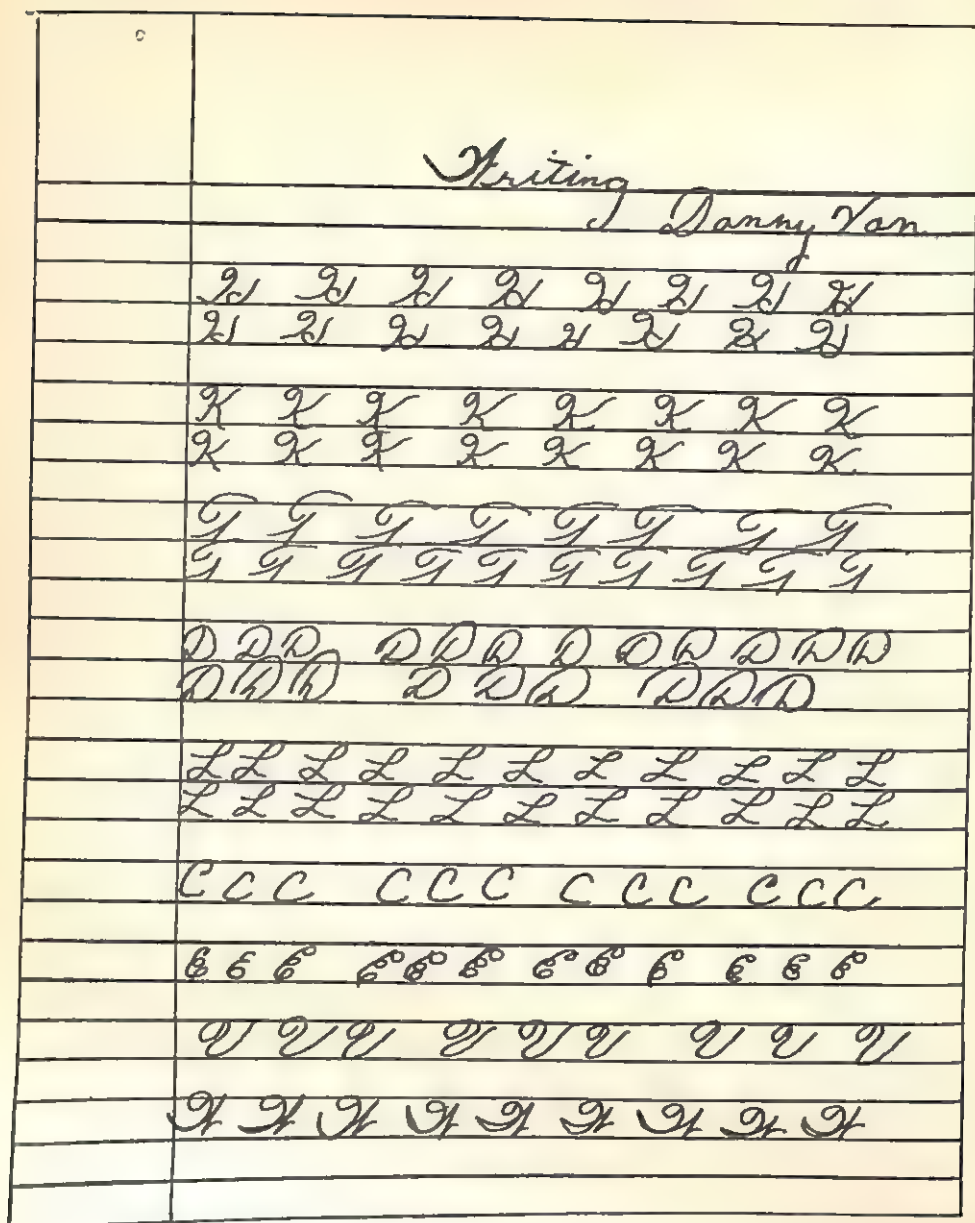
This is Danny's handwriting paper, given to his teacher after completing the assignment made to the entire class. He is in sixth grade. He is a good student, who learns easily. This will be Danny's last year for receiving formal teaching in handwriting—the last year it will be a subject in his curriculum.

Note that Danny has not learned—or having learned, doesn't use—the proper formations for H, T, C, E, and W. By grade six, the normal child should make all letters correctly.

It is somewhat alarming and puzzling that this better-than-average pupil, after all these years, should be making a capital "H" in this manner. It is not "H" at all. It isn't anything. What has happened?

Danny makes "K" very well. Why is he made to practice it? Similarly, his "L" is very nice. He spent as much time on these two letters as on "H" and the others. Why? Do you begin to see why the teaching of handwriting needs to be strongly individualized?

Observing the "D" in his name in the heading, we conclude that this is the way Danny habitually makes it. Thus, when he practiced the "D" on this paper, he merely scribbled off two lines of what was already a fixed letter formation in his writing. One might argue that Danny's unorthodox "D" is acceptable, since we should permit individuality to flourish. Individuality in writing is desirable, but letters should be formed correctly. Individualization of writing develops later in school, certainly *not* before children know and write the *correct* form of all letters.



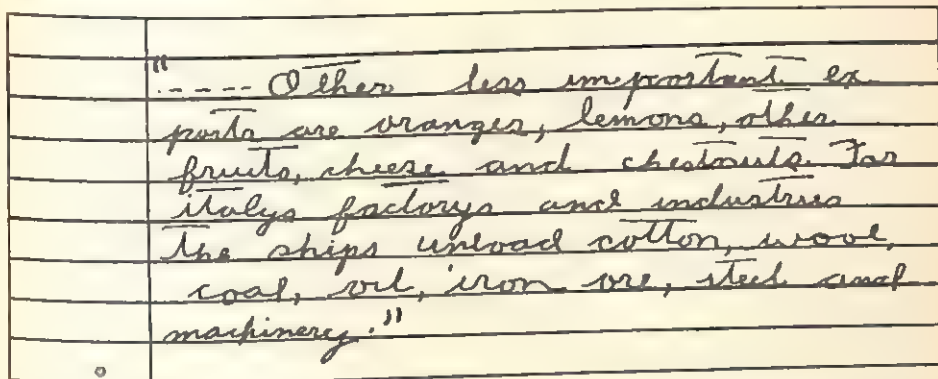
Danny made a line of acceptable "V's." But he hasn't yet made the connection between these and the "V" in his last name.

Without close supervision during writing periods, the wrong letter form and configuration is made into habit. The wrong form, written over and over by Danny, soon becomes the learned form. Look at the kind of "H" he is learning to make! A few more practice periods and he will have it.

The "C" is not a capital at all; it is only a small "c" written very large. And what about his "W"? or the "E"? Is his "T" acceptable?

How do you suppose Danny's "regular" writing looks? This was a special writing time, when children usually try very hard to write well. What would you do about Danny and for Danny at this point?

Or how would you approach Ellen's writing problem, which we present next. A portion of her paper is reproduced.



Ellen is a fifth-grade pupil. Obviously, she finds writing difficult; at any rate, she writes poorly. Are you ready at this point to accept this writing from Ellen, concluding that she is doing her best?

Her teachers have permitted her to be careless, and, to some extent, they are responsible for her sloppy writing. Teachers who accept a letter "t," for example, so ridiculously made by a pupil day after day, cannot be excused. We believe one firm statement from a teacher would soon have Ellen making a proper "t."

Children will write as poorly and as carelessly as teachers let them. Harold I. Clapp, in describing education in Switzerland, indicates that Swiss teachers are much stricter than American teachers in writing (as well as in other areas):

From kindergarten on, going to school in Switzerland is a serious business. . . . Even a first-grader keeps a separate notebook for each subject. He makes all his entries in it according to a fixed, logical system. He underlines all his headings with a pen and ruler. Careful handwriting is an important item. The pupil writes with ink from the start, and gets into real trouble if he does not soon learn to avoid blots and messy school work. . . . A Swiss first-grade pupil does more writing than many American students have ever done when they enter college.⁸

In Ellen's writing, there is evidence of other letters which need correcting. Ellen's writing problems were built: unobserving teachers

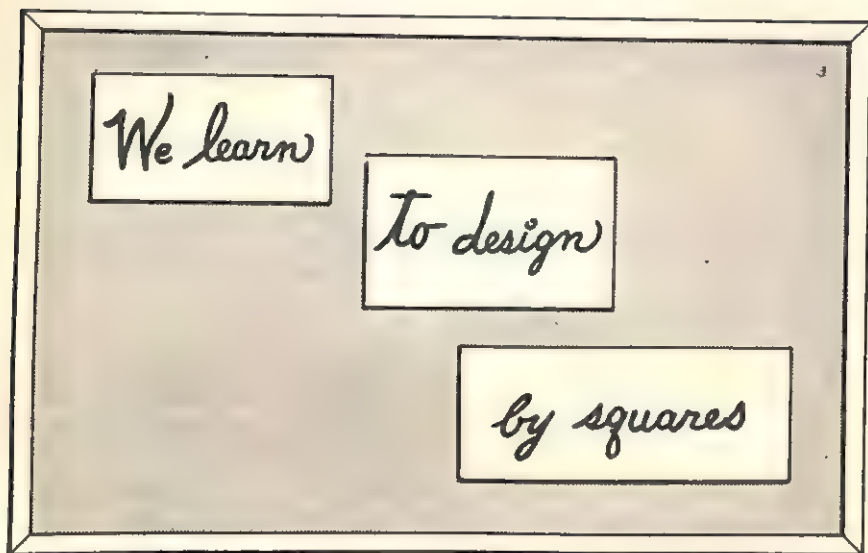
⁸ Harold I. Clapp, " 'Democracy' in Schools," *The Wall Street Journal*, Wednesday, March-10, 1958.

furnished the materials, and Ellen provided the labor. When Ellen began making some of her letters incorrectly back in an early grade, she either was not corrected or, being corrected, was not forced to make the correction a habit, and was permitted to return to her old ways of writing. These poor letter forms are learned now; Ellen uses them in all her writing. Handwriting correction and improvement will come hard for Ellen now.

POINTERS FOR HANDWRITING INSTRUCTION

1. A potent force in teaching children to write legibly and satisfactorily is the writing of the teacher, which will be seen and read by the children. While all of us cannot claim beautiful handwriting as one of our talents, all teachers should write correctly whatever they write for children to read. For as we *write*, we teach.

The fifth-grade teacher who prepared the arithmetic bulletin board shown here taught handwriting to her pupils, although she was not aware of it.



Do you see that this incorrect writing could have a negative affect on the writing progress of the pupils? We are not suggesting that we believe everything a teacher writes on the blackboard or on children's papers must be written in precise form. Some of us just couldn't come up to that standard. We should, however, do our very best at all times to write as correctly as we are able. For children will copy from us; their attitude toward writing will spring from the teacher, in the main.

It is proper and desirable, surely, for teachers to use modern-

istic, Old English, and unorthodox letters in printing titles, in art work, posters, and the like, and even to encourage some of the more talented and creative pupils to do likewise. But at such times, the teacher should explain to the children the purpose of such lettering and tell them that it is not to be used as a standard. The unique and eye-catching lettering illustrated here would make a teacher's health poster attractive and interesting.



Such lettering is usually reserved for the artistic and talented teacher. Those of us with only mediocre artistic ability should stick to basic lettering.

The writing of the teacher will be looked on by children as the model. Just as we cannot teach children safety while we ourselves are skipping stairs, we cannot create in children habits of good writing if we display the opposite before them.

2. Point out to the children striking, unique features of letters to help them remember how they are made; to aid them in seeing letter form and configuration. Here are a few examples:

The cursive "y" is an "h" when turned "upside-down."



Each of the 26 lower-case letters of the alphabet when written in cursive ends with an upward swing. Let the children try this for themselves. This recognition should help prevent children from creating this undesirable writing habit:

as, town, hit, supper

There is a *big* difference between the cursive "b" and "f" which you should first challenge the children to discover. Our friend, Mr. b is short and fat and his tummy is full, like this:





THE WRITING OF THE TEACHER SHOULD BE AS CORRECT AND LEGIBLE AS POSSIBLE; OUR WRITING IS PATTERNED AFTER BY THE PUPILS.

Mr. f is tall and thin, so hungry his stomach touches his backbone, and he looks like this:

f

Another mnemonic device for these two letters is this:

"b" is a bay and the ships can always sail in!

"f" is a fort, closed so that the Indians can't get in!

If the cursive "s" is correct, it will stick you if you sit on it!

s

3. In handwriting, as in other aspects of teaching, more action and less talking is often the solution. We believe this is true in writing when children continually do not write up to the standard they have already reached. Some teachers act in the following way, and get fast results: On the spelling test, words are marked as incorrect if letters are incorrectly formed. Pupils may protest at first, but when they see that the teacher means business, their writing improvement is amazing. A typical paper might look like this:

- | | |
|-------------|-----------------|
| 1. danger | ✓ 6. Washington |
| ✓ 2. butter | ✓ 7. telling |
| ✓ 3. clam | 8. orange |
| 4. hangar | 9. whisper |
| 5. answer | ✓ 10. candy |

You might argue that the teacher could have marked still other words wrong because of incorrectly formed letters. However, it would be unfair for the teacher to become too critical or "per-snickety." This teacher has marked wrong only those words which contain poorly made letters which the pupil would find impossible to defend. Let's look at some of them:

- (2) The word was "butter."
 - (3) This word was "dam." But our little friend has made his "d" very carelessly and his word looks strongly like "clam"! Unless his way of making "d" is corrected, he will continue to get into difficulty.
 - (6) Obviously, this is not a capital "W." Merely making a small letter *large* does not make it a capital letter.
 - (7) Plainly, the first letter is an "I" with a cross bar.
 - (10) In this word, the "y" doesn't end with an upward swing.
4. Remember that we are not after perfection in writing—we are not working toward Spencerian beauty. Correct letter formation is the most important factor in determining legibility, the real handwriting objective. Consider that as much pupil effort—sometimes even more—is required to make a letter incorrectly as to make it correctly.
 5. Teachers should pay constant attention to the comfort and posture of pupils as they write. Children should be comfortably fitted to the desk or table; they should not sit in a contorted manner. Tops of desks or tables should be clear, not cluttered.
 6. There are times when it is necessary and best to teach certain aspects of writing in a total group situation. These times are more necessary in the primary grades, when letters and numerals are introduced and reintroduced. Other times for group teaching are:
 - . . . at the start of a new year when it is well to review all letter formations.
 - . . . when certain letters are made incorrectly by the group.
 - . . . for group evaluation of writing.

or no time to regular handwriting lessons say, "I really teach handwriting all day in all subjects. My program is integrated, so there is no need for skills' periods." Research does not support this position.

10. *Teaching the Left-Handed Child to Write.*

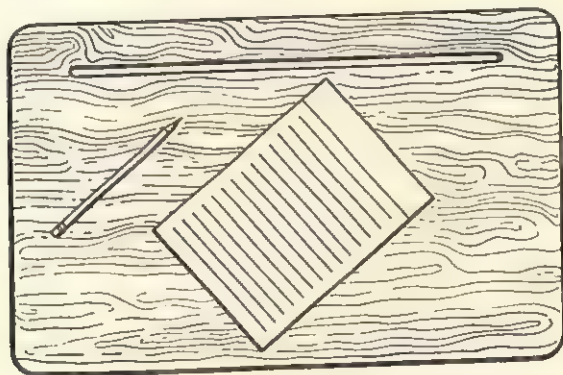
Most people are apathetic toward the left-handed person. "Who cares about the six per cent in our country who eat left-handed, play games left-handed, and write left-handed? After all, most of the world is right-handed." So say many people, but teachers *should* care.

Observe the distortions common among your friends who write with their left hands. One may write with a "hook" as he attempts to keep his hand twisted up and around out of the ink. Another may swing the paper around clockwise. He stops it so that the top of the paper is directly parallel with the right-hand side of the desk. Visualize the damage to posture and eyesight alone in this "adjustment."

Recognize the two or three left-handed children in your classroom. Plan to teach them to write legibly and comfortably. Don't forget this minority group; continue to help them.

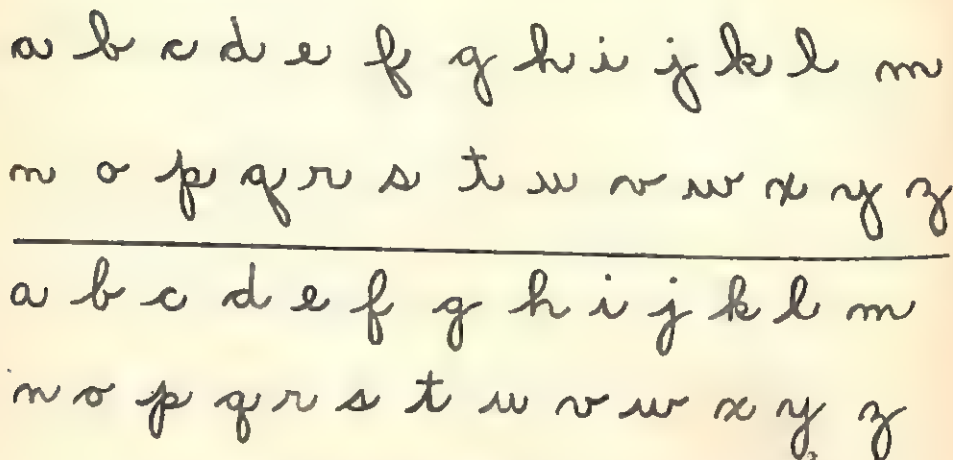
There are some important methods for teaching the left-handed child as he begins cursive writing in the second or third grade.

- a. Teach him to place his paper so that it is in the reverse position of that of the right-handed writer. Just as the right-hander swings the top right-hand corner of the paper up about 45 degrees, so the left-hander swings the top left-hand corner up about 45 degrees, like this:



- b. Teach him to hold his pencil or pen about an inch from the point. This allows him to see what he is writing, and as he begins to use ink, he won't smear.
- c. Teach him to develop a vertical or backhand slant as he writes. (If the child can develop a right-handed slant easily, then this should be encouraged.) Ask one of your good-left-

handed teachers to make two model cursive hand-writing alphabets, one vertical and one backhand. Have these dittoed on cards. Give each left-handed pupil his own card. A sample is shown here:



- d. Help the child choose and practice a slant that is comfortable for him.
- e. Finally, make the child feel comfortable about being left-handed. Try not to consider his left-handedness as unusual or different, and, following your example, the other pupils will not think of the left-handed children as different. Do not be a party to forcing a change from the left hand to the right. Surely there has been enough said and written on this topic in the last twenty years for teachers and parents to know how undesirable it is to force a change.

SUMMARY

Both manuscript and cursive writing are taught in the elementary schools. It is common practice to teach manuscript writing in kindergarten, first, and second grades, and turn to cursive writing in third grade and beyond. In either form, *legibility* is the prime goal. Speed and correct letter formation are important.

Handwriting should be taught primarily on an individual basis, there being relatively few times when class instruction, as a unit, is required. In no other subject can a child see his own needs so clearly. He needs only to look at his *writing*. In writing, too, it is easy for children to see their progress and to be motivated by that *growth*.

Poor handwriting habits are not easily corrected, once they have be-

come established. Therefore, *prevention* of malformation of letters is a tool of teaching, one which may prevent time-consuming and laborious remedial exercises.

PROBLEMS AND DISCUSSION TOPICS

1. Has quality of handwriting by elementary pupils improved during the past fifty years? If not, can you suggest any logical reasons why?
2. The success of the pupil in handwriting during the period of popularity of muscular movement was judged by his ability to reproduce copy from a writing manual. Is the pupil's handwriting judged differently today? If so, on what basis?
3. Discuss: If pupils wrote more legibly a half-century ago than they do today, children would profit if schools reverted to teaching methods employed in the early 1900's.
4. What is the best procedure in diagnosing handwriting difficulty? after locating the pupil's handwriting problems, what can be done to help him improve?
5. What is your analysis of Danny's handwriting on page 268?
6. Why is individualization of instruction important in teaching handwriting?
7. Defend the inclusion of regular skills' instruction and practice in the elementary handwriting program.
8. What are some suggested teaching procedures in working with the left-handed pupil in handwriting?

WHAT WOULD YOU DO?

Miss Hensley's handwriting is beautiful. The principal regularly asks her to write the names of the "graduating" sixth graders on the promotion certificates. She has taught her pupils to write beautifully, too—almost unbelievably well. You know this to be true, for you have Miss Hensley's class this year. The children soon notice that your writing is different from Miss Hensley's. While irritating, this does not bother you as much as this problem: though the children write extremely well, they write very, very slowly and laboriously. It seems you just don't have the time to wait for them to finish. The parents are extremely proud of their children's writing.

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CHAPTER 13

TEACHING SPELLING: A BASIC TOOL IN WRITING

OBJECTIVES OF THE SPELLING PROGRAM

Ability to spell is a basic tool for written communication; and so spelling is, to some degree, a writing problem. To a certain extent, mastery in spelling also determines the degree of creative, written expression. In Composite Elementary School, teachers try to instill among pupils a spelling consciousness: they emphasize spelling in every subject, and they help pupils discover the relationships between spelling and social situations.

In the primary grades, it is expected that pupils will learn to spell about four hundred common one- and two-syllable words, that they will be able to use simple spelling generalizations related to phonetics, and that they will acquire knowledge about forming easy plurals and contractions. In grades three and four, pupils should improve in ability to use the dictionary to find the correct spelling of words, to distinguish likenesses and differences in letter formations in words, and to show increased ability to apply certain principles and rules in spelling. The upper-grade pupils should strengthen middle-grade spelling skills, learn to syllabify four- and five-syllable words, and learn to select root words, prefixes, and suffixes. In these grades, pupils are also given advanced experiences in spelling skills and are taught additional spelling rules and principles. The specific objectives of the spelling program in the elementary school are these:

1. To spell correctly all words used in written work.
2. To relate sounds of words to correct spellings.
3. To learn meanings of words used in spelling.
4. To locate words in an alphabetical list.
5. To learn how to spell plurals of words.
6. To learn to correct misspelled words.
7. To learn how to use guide words in the dictionary.

8. To know what diacritical markings and accent marks mean.
9. To spell contractions.
10. To divide words into correct syllables.
11. To learn the spelling and meaning of common prefixes and suffixes.
12. To be able to build compound words from root words.
13. To learn to spell possessives and to use apostrophes correctly.
14. To acquire the habit of keeping a list of misspelled words and to practice these regularly.
15. To grow in command of vocabulary, including spelling.

CONTENT AND METHOD IN SPELLING

It is impossible to foresee exactly what the content of the program in spelling will be in your school, since content varies, within limitations, depending on the selection of spelling textbooks or on the development of a program by teachers within a school system. However, there are three popular programs of teaching spelling in the elementary schools. You probably will teach spelling under one of these prevailing philosophies.

SPELLING IN A WORKBOOK PROGRAM. In this particular program, each pupil in grades two through six will have the same graded workbook which outlines certain words to be spelled weekly and which provides questions and exercises to be completed in a daily, fifteen-minute period, culminating every Friday with a weekly test. Next week you turn the page and proceed to the following outlined lesson. In our opinion, this is the *least desirable* kind of spelling program. Content here is pretty much cut and dried.

SPELLING FROM A LIST OF BASIC WORDS. In this program, the school system adopts one of the better-known elementary school basic word lists.¹ These are graded lists, compiled by experts and published either in manual or textbook form for the elementary schools. The procedure generally is one of choosing a number of words each week for drill and memorization. If the program stops here (as it does in some schools), it is not much of an improvement over the workbook type of program.

BASIC WORD LIST PLUS PUPILS' NEEDS APPROACH. We hope you will find, in whatever school you may teach, a philosophy of teaching spelling based on these ideas:

¹ See: Ernest Horn, *A Basic Writing Vocabulary*, University of Iowa Monographs, Series No. 4, University of Iowa; Henry D. Rinsland, *A Basic Vocabulary for Elementary School Children* (New York: The Macmillan Company); James A. Fitzgerald, *A Basic Life Spelling Vocabulary* (Milwaukee, Wis.: The Bruce Publishing Co.); or Edward W. Dolch, *Better Spelling* (Champaign, Ill.: Garrard Press).

- (1) Research has shown that there are certain words which occur often enough in the needs of elementary-school pupils, so that effective use is made of a basic word list.
- (2) Not all children need the same words in spelling. An exploratory test at the beginning of the school year over basic words helps the teacher determine these needs.
- (3) Not all children need to follow the same pattern of learning to spell a word.
- (4) Children need to learn to spell in order to communicate more effectively and to express themselves in writing more creatively.
- (5) Children should be helped to see why they should want to spell correctly.
- (6) Children should be given opportunity and guidance in learning to spell those words which they are using in other areas of study. Words in arithmetic, social studies, science, and health instruction, for example, should become a regular part of spelling instruction.

This type of spelling program shows respect for research, but it is also flexible enough to allow for individual pupil needs. Spelling requirements will vary within the same class, thereby allowing for individual differences and subsequent range in spelling achievement. It is recommended, too, because it affords many integrative possibilities within the curriculum. However, this method of teaching spelling demands a higher degree of teaching effectiveness and more careful planning than the other two methods. It requires not only a knowledge of the words in the adopted list but also the ability to integrate other instructional areas with spelling, and skill in the development of good techniques in word presentation, methods of study, and ability to build a sequential program in spelling. This is, indeed, a big order for the beginning teacher. But the objectives are not unattainable for the teacher who wants to provide a functional spelling program for pupils.

AUTHORITIES DISAGREE ON SPELLING CONTENT

Authorities in the field of spelling do not agree on the selection of words for each grade level. Betts² analyzed seventeen spelling textbooks for the elementary school and found that only 6.26 per cent of the words included appeared in all of the series and that only one word, *long*, was placed in the same grade in these textbooks. Rinsland³ examined 100,212 written papers by analyzing only one paper from any one child from first through the eighth grade. Nearly six million running words were tabulated. His findings in children's writing vocabulary showed:

² E. A. Betts, *Spelling Vocabulary Study. Grade Placement of Words in Seventeen Spellers* (New York: American Book Co., 1940).

³ Henry D. Rinsland, *A Basic Vocabulary of Elementary School Children* (New York: The Macmillan Company, 1945), pp. 37-43.

GRADE	DIFFERENT WORDS
1st	5,099
2nd	5,821
3rd	8,976
4th	9,976
5th	11,449
6th	11,304
7th	14,820
8th	17,930

Consequently, it is relatively easy to understand why word selection for content in the elementary school spelling program is a difficult problem. On the other hand, it is not necessary to teach *all* the words used in our language, for a fairly small number do most of the work in our writing. Studies have shown that about 2,000 words make up more than 95 per cent of the word usage in adult writing and that one-fourth of our written words are these: *a, and, I, for, in, of, that, to, you.*⁴

TEN COMMON CONTENT FEATURES IN ELEMENTARY SPELLING PROGRAMS

1. Most of the spelling programs in the elementary schools' emphasize the 2,000 common words which constitute over 95 per cent of written word usage.
2. All spelling programs include the process of forming new words from root words.
3. Pupils in each program are taught how and where to find correct ways of spelling words which have been misspelled.
4. Each program draws upon other subjects to some extent for words in the content of spelling.
5. In practically all programs, pupils are taught methods of reviewing difficult words.
6. Most schools do not begin formal spelling instruction until the latter part of the second grade; spelling in the first grade in most programs is incidental in nature.
7. In varying degree, spelling is integrated during instruction in reading, social studies, science, and other subjects.
8. Most schools include a short skills instructional period daily in the spelling program.
9. Most programs include some type of achievement testing.
10. In the upper grades, most schools include study and review of the following one hundred words most often misspelled by elementary pupils:

⁴ Ernest Horn, *Teaching Spelling* (Washington, D.C.: National Education Association, 1954).

**ONE HUNDRED WORDS MOST OFTEN MISSPELLED BY CHILDREN IN THE
ELEMENTARY GRADES⁵**

their	because	swimming	it's	all right
too	thought	first	started	happened
there	and	were	that's	didn't
they	beautiful	than	would	always
then	its	two	again	surprise
until	went	know	heard	before
our	where	decided	received	caught
asked	stopped	friend	coming	every
off	very	when	to	different
through	morning	let's	said	interesting
you're	something	mother	wanted	sometimes
clothes	named	another	hear	friends
looked	came	threw	from	children
people	name	some	frightened	an
pretty	tried	bought	for	school
running	here	getting	February	jumped
believe	many	going	once	around
little	knew	course	like	dropped
things,	with	woman	they're	babies
him	together	animals	cousin	money

TEACHING SPELLING

The teacher provides many opportunities in spelling, knowing that pupils also learn to spell words by seeing them in print in books, newspapers, magazines, movies, and TV programs. Teachers emphasize correct spelling in everyday situations and in all written papers handed in by pupils. They recognize that the ability to spell well in written material is the best criterion for the pupil's proficiency in spelling, *not* his ability to spell so many selected words each week. Therefore, good teachers don't pass up chances to provide purposeful writing assignments in which spelling is promptly analyzed with individual pupils. The teacher tries to help each pupil create and strengthen purposes for spelling and to develop effective, independent habits in correcting his spelling.

SPELLING IN THE PRIMARY GRADES

There is very little writing in most *first grades*, and the desire to spell is sporadic and incidental. First graders may label common objects in the classroom and copy short, friendly letters and experience stories near the end of the year. Some pupils will learn to spell the most recurrent words which they have encountered in reading. Of course, range in

⁵ Leslie W. Johnson, "One Hundred Words Most often Misspelled by Children in the Elementary Grades," *Journal of Educational Research*, XLIV (Oct., 1950), pp. 154-155.

ability to spell begins to show in first grade; although most first graders will learn to spell very few words, a few pupils will make good progress and know how to spell many words by the beginning of second grade. Those pupils who have made the most rapid progress in reading, showing good ability in English usage and advancement in physical, social, and emotional maturity, and auditory and visual perception, will generally be your best achievers in first-grade spelling. The spelling program at this level, is for the most part, incidental and grows out of the pupils' interests.

In the *second grade*, with more reading and additional opportunities for writing, the need for spelling increases. It is not difficult to find ways to motivate pupils to want to spell the words they are learning to write. The second-grade teacher, like the first-grade teacher, has some pupils who advance rapidly. But generally second graders will learn to spell only those words for which they have a need. The average second grader will find it relatively easy to spell the simple words he learns in his reading. Your job here is to help the pupil want to spell, to select easy words, at first, which he can spell successfully, and to help him gradually enlarge the number of words he can spell. The second-grade teacher must also be alert to ways in which spelling is related to the writing activities of pupils—letters, creative stories, rhymes and riddles, listing school safety rules, and writing stories about holidays, vacation fun, pets, and interests.

SPELLING IN THE MIDDLE GRADES

When pupils reach the middle grades—*third* and *fourth*—there is an increasing number of writing activities which call for additional needs in spelling. Pupils write about educational trips and trips taken with their families; they create original stories and poems; they write about plans for a class party or a holiday celebration; they write book reports and descriptions of movies and interesting situations. They make lists of books read and lists of new words encountered in reading. Third and fourth graders also do a great deal of writing in connection with other school subjects. If spelling is essentially a writing matter—if its importance is primarily that of communication through writing—then middle graders have great opportunity and much incentive for correct spelling. Teachers can build upon this incentive in motivating greater desire for correct spelling in the varied writing activities in these grades.

Skills instructional periods are more formal, are held more regularly, and encompass more complex words and spelling principles. The use of the dictionary is introduced and practiced. Rules learned in word analysis in reading and language are related to spelling. Use of capital letters for certain words is studied, meaning of spelling words is taught, and time is devoted to proper use of the apostrophe in spelling contractions, forming compound words, and spelling plurals of nouns and the past tense of verbs.

SPELLING IN THE UPPER GRADES

In grades *five* and *six*, most pupils are mature enough to practice many skills which contribute to further improvement in spelling. There are many opportunities for correct spelling in writing: friendly letters, book reports and reviews, necessary writing in the study of other school subjects, note-taking for oral and written reports, preparing outlines and bibliographies, writing essays, poems, paragraphs, and stories, and the writing necessary in editing a class or school newspaper. In the upper grades, pupils have much more opportunity to see "spelling in action" than at other grade levels. Therefore, spelling should be closely related to those activities where pupils' purposes are clear.

However, the practice of integrating spelling with all written work does not mean that the upper-grade pupils should not have skills instruction. In any fifth- or sixth-grade class there will be some students who should have intensive review of middle-grade words and spelling principles. There will also be others who should be challenged by learning skills at a higher than middle-grade level. Helping both groups in spelling is the job of the fifth- or sixth-grade teacher. For most of these pupils, improvement in ability to locate individual spelling errors and to use the dictionary to check spelling and meaning should be encouraged. Increasing command of vocabulary, including spelling, is a vital part of the upper-grade pupil's elementary education. Improvement in vocabulary also implies greater comprehension and understanding of words. Spelling is related to this task, and you should help pupils see this relationship in the upper grades. It is also necessary to help pupils understand that elimination of unnecessary repetition in writing requires a knowledge of synonyms—and, of course, a knowledge of how to spell these synonyms. Finally, basic spelling principles and words learned in earlier grades are reviewed in grades five and six.

GENERAL SPELLING SUGGESTIONS FOR TEACHERS

1. Primary teachers must recognize that effective spelling readiness programs are started in the first grade. Primary programs which include *early* instruction in manuscript handwriting and phonetic word analysis tend to produce greater readiness for spelling than programs where phonetic instruction is not emphasized.⁶
2. Skills instruction in spelling should be provided in a daily period of about twenty minutes.⁷
3. All written work by pupils should be checked carefully for spelling errors. In the lower grades, checking should be done by the teacher. In the middle and upper grades, pupils should be taught to locate

⁶ See David H. Russell, "A Diagnostic Study of Spelling Readiness," *Journal of Educational Research*, XXXVII (1943), pp. 276-283.

⁷ See Russell G. Stauffer, "Research in Spelling and Handwriting," *Review of Educational Research*, XIX, No. 2 (April, 1949).

errors and to check spelling by using the dictionary, though the teacher must continue checking.

4. In the middle and upper grades, teachers should help pupils improve ability to study spelling independently. There is some evidence that pupils do very well if encouraged to develop self-study habits in spelling.⁸
5. Wherever possible, relate spelling to other study areas in the curriculum.
6. The "spell-down" and the writing of words "so many times" are a waste of pupils' time in mastery of spelling."
7. Spelling words learned in isolation and for which pupils can see little functional use are soon forgotten.
8. Teachers should give careful attention to these activities: introducing new words during the spelling skills period; having pupils use words in sentences and helping them understand meaning; devoting periods to "hearing sounds" in spelling words; selecting "hard spots" in words—for example, the *ie* in *believe*; and developing good pre-tests, so that pupils may recognize *where* they are making mistakes in spelling.

WHY DO SOME PUPILS HAVE DIFFICULTY IN SPELLING?

Locating the poor spellers in your class is an easy job. A cursory examination of written work usually is sufficient to reveal which pupils are having trouble in spelling. Such an examination won't necessarily reveal the pattern of spelling mistakes of individual pupils, but you can find out which ones are having difficulty. Teachers must be careful about drawing hasty conclusions as to the reasons for poor spelling. Russell tested 1,185 pupils in grades three through six from the New York City Public Schools, carefully matching sixty-nine pairs; one of each pair was normal or better in spelling, and the other was retarded by one year or more. The correlation between mental ages for each group showed little relationship; in other words, some gifted pupils are retarded in spelling. Further interesting findings were these: Differences in hearing acuity were not statistically important; visual factors were important for individual cases only; inability to turn sounds into letters, phonograms, or syllables is a basic cause of poor spelling. Another conclusion was that spelling disability is often caused by failure in the primary grades to acquire techniques to handle letter sounds, syllables, word analysis, and other basic language skills.¹⁰

Other causes of poor spelling may be auditory loss, low physical

⁸ C. W. Dupee, "A Comparative Experimental Study of the Pupil Self-Study Method and the Modern-Systematic Method of Teaching Spelling," *Journal of Experimental Education*, VI (1937), pp. 1-6.

⁹ C. W. Hunnicut and William J. Iverson, *op. cit.*, p. 312.

¹⁰ David H. Russell, *Characteristics of Good and Poor Spellers* (New York: Bureau of Publications, Teachers College, Columbia University, 1937).

vitality and inability to stick to the job of studying, poor handwriting, and low mentality. Generally, pupils with extremely low I.Q.'s are also low achievers in all language skills, including spelling. However, Spache's evidence showed that relationship between ability to spell and intellectual capacity is lower in spelling than in most other school subjects.¹¹ Poor visual perception and visual memory have also been identified as casual factors in low spelling achievement. A rather common cause for poor spelling is the habit of mispronouncing words. When parts of words are not sounded or are sounded incorrectly, pupils have spelling troubles.

PLACE SOME BLAME ON THE ENGLISH LANGUAGE

Some writers have concluded that much poor spelling is caused by the fact that the English language is, in many respects, non-phonetic—words aren't spelled the way they sound. Silent letters are troublesome; we give different sounds to the same letters in certain words and the same sound to different letters in other combinations. In addition, there are many words in the English language which are pronounced exactly alike but which have entirely different meanings and different spellings (*to, too, two; knew, new; threw, through*). Sentence structure, context clues, and general ability in reading are closely related to spelling in these situations.

LOCATING SPELLING ERRORS OF THE INDIVIDUAL PUPIL

How does the teacher find out the specific difficulties of a pupil? This is a significant problem if teachers are to build good spelling programs, because class progress comes from individual pupil improvement. Effective pupil diagnosis of spelling problems arises, in part, from the teacher's experiences and trials at solution. If you will tackle this problem in objective fashion in successive years of teaching, you ought to learn how better to analyze pupil's spelling problems, but you have to start somewhere. Here are some suggestions you may find helpful:

1. **EXAMINE INTELLIGENCE TEST REPORTS.** For normal and above normal pupils, you will want to establish the fact that the pupil has innate ability to learn to spell. Remember the evidence cited earlier that intelligence test reports may have significance only for pupils who are extremely low in mental capacity.
2. **ANALYZE WRITTEN REPORTS BY PUPILS.** The best criterion of spelling ability is found in papers written by the pupil. Your job here is to identify spelling mistakes. Circle those errors on the papers and keep a running record of the *kinds* of misspellings. This is not as difficult as it may appear to be. In the average class, you will not

¹¹ George Spache, "Spelling Disability Correlates I-Factors Probably Casual in Spelling Disability," *Journal of Educational Research*, XXXIV (1941), p. 568.

have many retarded spellers. Make a chart like the one below, allowing sufficient space for checking *types of mistakes* over a period of time. Small checks under the appropriate "trouble spots" column will help point out spelling errors made by individual pupils. This identification must be made if you are to build a remedial program for poor spellers.

Names of Pupils									Comments and Added Notes
	Double Consonants	"E" to "iE"	"y" to "i"	Forming Plurals	Silent "E"	Prefixes	Suffixes	Learning Phonetic Errors Forming Post Tense Improper Sounds	
Brown, Sue									
Corum, Henry									
Hinkle, Joseph									
Moore, Patricia									
Post, William									
Welland, Michael									

COMMON TROUBLE SPOTS IN SPELLING.

3. LISTEN TO WORD PRONUNCIATION. Ask pupils who are having spelling difficulty to pronounce aloud spelling and reading words. Phonetic mistakes may be discovered.
4. CHECK SPELLING TEST PAPERS CAREFULLY.
5. DETERMINE THE PUPIL'S KNOWLEDGE OF THE FOLLOWING FOUR SPELLING PRINCIPLES. Studies have shown that lack of knowledge of these principles and failure to practice them are important causes of poor spelling:
 - (a) rule for *ei* and *ie*
 - (b) rule for double consonants as suffixes
 - (c) rule for silent *e*
 - (d) rule for changing *y* to *i*
6. MAKE USE OF DIAGNOSTIC SPELLING TESTS. There have been developed several good spelling diagnosis tests which teachers should use as aids in locating mistakes of individual pupils. Among acceptable tests are these: *Buckingham Extension of the Ayres Spelling Scale* (Bloomington, Illinois: Public School Publishing

Company); *Gates-Russell Spelling Diagnosis Test* (New York: Bureau of Publications, Teachers College, Columbia University); and *Diagnostic Spelling Test* (New York: Educational Records Bureau, 437 West 59th Street).

TEACHING REMEDIAL SPELLING

Locating the pupil's particular difficulty in spelling is the *first* step in a remedial program. Most important, however, is the development of an improvement program so that steady progress is made in the ability to spell. This means that time must be spent with individual pupils in selecting the proper remedial techniques. Remedial spelling instruction is not easy, but it is necessary for every teacher to devote some effort to it. Here are some ways of helping poor spellers:

1. HAVE THE PUPIL "SEE" HOW THE WORD IS SPELLED. Some pupils depend on seeing how letters are put together in a word and studying the word through visual imagery. In remedial cases, one technique to be tried is that of helping pupils build correct images of how words are spelled. Ask the pupil to study the word and then close his eyes and spell it aloud to a classmate.
2. HAVE THE PUPIL "FEEL" HOW THE WORD IS SPELLED. For many years there has been recognition of the value of the kinaesthetic process of learning to spell. In this procedure, the pupil traces the letters of the word and learns the correct spelling through hand-motor association. Many pupils depend more on this method than on other methods.
3. HAVE THE PUPIL "HEAR" HOW THE WORD IS SPELLED. The ability to hear the correct sounds in a word and to associate the sound with the spelling greatly facilitates learning in this subject. Give adequate opportunity for pupils to hear *you* pronounce the words and to hear their own pronunciation.
4. HAVE THE PUPIL SAY THE WORD TO BE SPELLED. The pupil should pronounce the word. Allow time for a pupil to pronounce words, listen to his pronunciation, and make corrections when mistakes are noted.
5. COMBINE THE METHODS NOTED ABOVE IN TEACHING SPELLING. Have the pupil study the word and "see" it; pronounce it; listen to another pupil say it; trace it or write it; and use it in a good sentence.
6. CORRECT RECURRING MISTAKES. From analysis of the types of errors which the pupil has made in written work and in spelling tests, provide individual instruction and suggestions in helping him correct his errors.
7. REVIEW SPELLING RULES. If the pupil's recurring mistakes are caused by failure to apply spelling rules, intensive study and re-teaching of the appropriate rules should be undertaken.

8. **HELP THE PUPIL BUILD A SPELLING CONSCIOUSNESS.** In the middle and upper grades, the retarded speller needs encouragement and particular attention so that he becomes more aware of the importance of spelling, develops habits of correcting his own errors, and makes use of the dictionary. Teachers should devote extra time to spelling and its relationship to social situations in communication. Spelling instruction throughout the day is necessary to help pupils build a spelling consciousness.
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FROM THEORY TO PRACTICE

WELL BEGUN IS ONE-QUARTER DONE

According to Ernest Horn,¹² 20 per cent of our written words (*a, and, I, for, in, of, that, to, and you*) are soon learned by children. Most first and second graders can spell these words easily. If we add the next most used words, *it, is, was, have, my, are, he, on, and they*—words most pupils will learn early and quickly—that 20 per cent will be significantly raised. We can then say that, with over one-fourth of the needed words already within children's spelling vocabulary, we have a good start in our teaching of spelling. But there is still much teaching to be done.

When playing jacks, children are likely to pick up first the jacks that have landed closest to them before going for the more difficult ones, those which have landed farther away. Apparently this happens in spelling, too. The first one-fourth or one-fifth of spelling is picked up early and easily. Then comes the hard work—the children's and the teacher's. So how do we proceed?

DETERMINE ARRANGEMENT AND PROCEDURE IN SPELLING

We have recommended a daily, formal spelling period. These periods—each of the five weekly spelling sessions—should have uniqueness and individuality. From the first period, each leads into the next and toward the end-of-the-week goal and conclusion. There are numerous ways in which spelling can be organized for the week. One commonly used third-grade program is arranged like this:

MONDAY	Words are introduced (meanings discussed, used in sentences, word structure studied, and so on).
TUESDAY	First test is given. The main purpose is to have each child discover (1) the words already known, and (2) the words on which further study is needed.
WEDNESDAY	Words missed are studied. Independent study materials are introduced. Such "work sheets" or workbook material

¹² *Op. cit.*, p. 282.

should not draw attention away from the more important word list.

- THURSDAY Second test is given, followed by immediate study of any unlearned words. Continued work on study materials.
- FRIDAY Final test on word list; culmination of study material. Occasional review.

SOME FILLING FOR THE PIE

The organization of your spelling week into some definite and regular sequential program is the pie shell. Necessary as this is, what goes into the program—the filling for the pie—is of major importance, along with how the program is directed—how the pie is baked. Let us put it like this:

1. The spelling course of study, textbook or workbook—the organized program for teaching spelling in the school—will have been established when you begin teaching. The exception—and a good exception it is—is the program which is actually built by the teacher.
2. Organizing the spelling week may be left entirely up to you or, if you are a beginning teacher, there may be strong direction.
3. The way in which the spelling is taught will rest almost entirely with you.

PREPARE TO MEET AND TO MASTER FRUSTRATION

Learning to spell and write the English language is a frustrating experience through which we all must go. In Composite School, with its advancements in educational procedures and its better trained teachers, children today should meet fewer frustrations and be affected less by them than those of us who had this experience much earlier. Words in the English language are difficult to learn to spell. There are those who maintain that English spelling is the most complicated, contradictory, and confusing of all languages.

Imagine how difficult arithmetic would be to children if 2×4 equalled 8 sometimes (“... except after $2 \times 3!$ ”). You are well acquainted with the many exceptions and inconsistencies in English spelling, of the difficulty involved in rule application, of the phonetic absurdities, and all the rest.

You must deal with phonics, rule exceptions, syllabication, and other aspects of the subject. You should not teach spelling with undue emphasis on phonetic analysis, or lead children to depend too heavily on being able to “sound out” words for spelling purposes.

Although the English language is said to be 85 percent phonetic, of the 350 most fundamental words of writing for child and adult, fewer than 200 can be written as they sound. More than 150 of these 350 most

useful words—which make up more than 75 percent of the running writing of ordinary people—are spelled differently than they sound. Examples are: *again, always, before, cousin, game, like, near, people, rain, third, where, who, and write*. So, about 40 percent of these most useful words are non-phonetic from the standpoint of spelling.¹³

Phonetic rules and generalizations have value and, though they are often confusing and difficult, they should be taught. But at the same time, the exceptions should also be taught, lest you teach children what is not absolutely true. Think how incorrect it would be to teach that, in words of one syllable with only two vowels, "When two vowels go walking, the first one does the talking," and not add "usually," or "much of the time."

Children would have much difficulty applying this rule to such words as these: *look, bread, shoes, four, been, out, their, and friend*, and many more such exceptions.

HOW DO YOU SPELL "SPOSTA"?

"I'm writing to my cousin to ask him to sleep out in my tent in our back yard next Saturday night. He's *sposta* bring his sleeping bag. So," asks your fourth-grade pupil, "how do you spell *sposta*?"

"Sposta" is the word he wants. No other will do. He wants to know how to spell it. The secret of learning to spell is *needing* to spell, *wanting* to spell. Almost all spelling is done in writing. In everyday living, we spell orally very little—hardly at all. One of the teacher's challenges is that of getting children *to want to write*. If we can create in children a genuine desire to write and, in the elementary years, get them to write frequently, the teaching of spelling will be easier and success will be greater. The more children write, the more natural will be the desire to know how to spell easily and correctly. Spelling becomes a needed tool. To be a ready tool, it needs to be a learned tool. ("I'm not going to look up 'sposta' every time I need it. I'll just learn it!")

Thus, encouragement in writing is paramount. Handwriting skills become abilities children will see a need for developing. You see how it all begins to fuse—writing, spelling, handwriting, composition.

MOTIVATION FOR SPELLING

Motivation for writing is at the same time motivation for learning to spell. In the chapter on literature and creative writing, inspiring and encouraging children to write are discussed. At this point, we want to look at some ways children can be stimulated in their study of spelling.

1. **INDIVIDUALIZE THE SPELLING LIST.** Requiring all children to study the same list of spelling words is just as indefensible as using the same book

¹³ James A. Fitzgerald, "How Shall Phonics Be Used in the Teaching of Spelling?" *National Catholic Educational Association Bulletin*, LIII, No. 3 (Feb., 1957), p. 23.

and materials for every child in first-grade reading. In any class there will be a wide range of spelling ability. In a fifth-grade group, for instance, there will be abilities from third grade through seventh grade. The median spelling list, designed to meet the needs of the average child, makes few pupils happy. Such a list shackles the brighter or more advanced pupil and makes spelling a dull thing. It discourages the slow learner, who cannot succeed with a list too difficult for him. He soon dislikes spelling. Such a list fails the average child, who may not be average at all. He may be unchallenged or overchallenged by an inflexible word list.

Motivation and interest spring from a flexible word list which holds out a constant challenge for every boy and girl, regardless of ability. Observe in the following sample of a weekly spelling list how individualization is brought about. This is a fourth grade. The word list resulted from taking a field trip in science.

WORDS FOR THE WEEK

1. feed	11. forest	21. afternoon	31. climate
2. went	12. soft	22. marked	32. muddy
3. time	13. blowing	23. spider	33. oriole
4. food	14. guide	24. meadow	34. yesterday
5. soil	15. stones	25. shovel	35. dangerous
6. Friday	16. butterfly	26. everything	36. discover
7. woods	17. notebook	27. hear	37. distance
8. bottle	18. mount	28. nature	38. buried
9. wings	19. planned	29. returned	39. specimen
10. chase	20. slender	30. capture	40. evergreen

The teacher has listed the words from the less difficult to the more difficult. The list meets individual needs of children in this way: Any child may attempt, on Monday, as many words as he believes he can learn successfully. One child may stop with number ten. Ten words, then, become his assignment for the week. Another child will stop with fifteen or twenty. Others will go through number thirty. Some will go all the way. (Note: When this kind of plan is first introduced, children will be prone to "bite off more than they can chew." Soon, however, like water, each will seek his own level. A pupil will not long keep trying a list of 30 words when each Friday he misses 10 or 15.)

On test days, the teacher pronounces the entire list without interruption. As each child comes to the limit he has set for himself, he stops, and while the others go on, he looks over his words for errors, improvement in letter formation, and so on. The pupils are not aware of the time when classmates reach their dropping-off place.

Children's morale is kept high, for no child is ever permanently limited to any particular number. Knowing that they can take more if they want to sustains children's interest and often saves face.

The gifted are challenged constantly. The list is an open-ended one in that the number of words can go higher and become more difficult. Adding words to the weekly list is not, of course, the only way to challenge the gifted in spelling. There are many other enriching and challenging activities, such as writing the words in creative stories, dictionary activities, and difficult alphabetization.

The slow learner or the child with spelling problems is challenged. "When I spell six words correctly for three weeks, I'm going to try *seven*." Teacher guidance plays an important part in such a plan.

2. Another practice that encourages and interests children in spelling is showing them, or letting them discover, the many words they can already spell—how many they know and will never have to study or learn. It's fun to discover that you have learned something or know something—and it didn't cost anything! Such a challenge as the following will have children eager to test out the idea:

"How would you like to learn *just one word* and get 34 more learned free . . . without having to study them?" asks the teacher. They all would like this bargain.

The word is *end*. "*End* is the key. How many word doors can you open with it?" The teacher then starts the children building a list like this:

<i>end</i>	ended	ending	ends	
bend		bending	bends	bender
fend	fended	fending	fends	fender
lend		lending	lends	lender
mend	mended	mending	mends	mender
send		sending	sends	sender
tend	tended	tending	tends	tender
wend	wended	wending	wends	

Children become very excited on discovering that they can spell many words merely by knowing the sounds of the letters and the endings *ed*, *ing*, *er*, and *s*.

Show children that they can make many words without "learning" them by knowing base phonetic "families," such as *fight* from *ight*, *came* from *ame*, and so on. They will make lists of hundreds of words which they actually know. This makes them very proud, and they think spelling is fun.

3. Keeping individual "progress charts" helps maintain interest in spelling and keeps the pupil constantly aware of his progress and needs.

4. When we teach children how to generalize, they are freed from having to study every word they wish to write. Teachers need to remain alert, however, so that children do not become so exclusively dependent upon generalization that they form the habit of guessing. But when a

child can easily spell *candy* (and what child cannot) there should be little need for him to use the dictionary or ponder long trying to spell *sandy*; when he knows how to write correctly the word *band*, application of generalization should help him quickly write the word *landing*, or *handy*.

Before leaving the subject of generalization, let us add one more point about it:

Although there is still considerable difference of opinion among educators as to the value of generalization as an aid to spelling, scientific research has shown that some transfer does take place in the learning process. When generalization is properly used, we have an effective aid, akin to insight or thought spelling. Organizing words into categories which either do or do not fall into the same pattern for spelling, and providing for the exemptions, is an economy in time and effort over treating each word in the English language in a separate learning situation as well as a means for developing greater assistance toward the mastery of many unlearned words. Furthermore, if learning is a reconstruction of experience, we may be sure that pupils will naturally generalize from their previous associations.¹⁴

Pointing out to children and letting them discover that spelling is easy, that it is easy to learn to spell (in spite of the difficulties of the English language), that it is a valuable servant once learned, will serve as motivation. Carrying on a well-tailored program in which individual needs of children are considered will, by itself, be a motivating force.

DAY-BY-DAY PRACTICES TO ADOPT OR AVOID

1. SELECT WORD LISTS THOUGHTFULLY. Even if you are bound to a pre-determined, graded word list, you will include words which are especially pertinent or which are of particular interest. In creating such a list from an activity or experience, avoid words for which children have little present use or words which are far too advanced. To add zest and interest, it is justifiable to slip in a word or two once in a while that is difficult—an adjunct to your spelling list for the very bright and ambitious pupils. But the regular word list should contain words which are within the vocabulary level of the children. If, for example, after a fourth-grade class has visited the city post office in their study of Communication, such words as these would be inappropriate in a spelling list:

cancel
conveyor
inspector
pouch
special delivery
superintendent

¹⁴ Grosse Pointe Public Schools, *Thinking About Spelling: A Manual for Elementary School Teachers* (Grosse Pointe, Mich.: Grosse Pointe Board of Education, 1957), p. 15.

2. **THOSE ABC'S!** You may have been wondering whether or not in this chapter you would be advised about when to teach children their ABC's. Actually, you may never have to teach the alphabet as such. You may never need to write in your plan book, "Wednesday: Begin teaching the alphabet." Most children know their ABC's by the time they need them, and usually before. When and how do they learn them? Think back. When did *you* learn the alphabet? Probably when and where most children learn it—at home, before starting to school. Most pre-school children receive from Santa Claus or from friends or relatives an ABC book or a set of ABC blocks. Eager fathers and mothers have an enjoyable time teaching the letters to Junior, or, through natural curiosity, Junior does some early homework and teaches himself the ABC's.

Still, there will be some children, especially in the early grades, who cannot say the alphabet in order. Without your teaching them, some will learn at school. When children need to know their ABC's and need to know how to use them, the time has come for you to teach them. You won't have many customers.

3. **THE LITTLE WORD IN THE BIG WORD.** Books and manuals in teaching reading and spelling recommend that children develop the habit of looking for the little word in the bigger word in order to help themselves in pronouncing or spelling. Seeing *all* in *hall* is an example. This technique is a helpful one for children as long as they are, at the same time, taught that there are quite a few words which defy this trick. A 100 per cent application of this technique would surely get them into trouble. Sometimes we have doubted the wisdom of teaching the practice as we have seen children led astray trying to use it. Sharp-eyed children, seeing the little words in the following words would doubtlessly become confused in attempting to pronounce them:

am	in	stream
road	in	broad
our	in	course or journal
at	in	late
in	in	find
on	in	done
one	in	phone
me	in	amen
ache	in	attached
how	in	show

4. **"LOOK IT UP YOURSELF."** Teachers should not believe they are making children independent and fostering better habits of study and dictionary skills by often saying to the child, "Look it up." What the teacher should do when the child asks how to spell a word, depends on the situation, the child who is asking, the amount of available teacher time at that moment, the purpose or urgency of the request, and the skill of the questioner to "look it up."

There are occasions when asking a child to look up a word would be as needless and unwise as calling the fire department to put out a candle. For example, what gain is there for a child who spends twenty confused minutes in the "e" section of the dictionary searching for the word *xray*, or in the "s's" for *psychology*? The child would perhaps give up and return defeated to his desk, probably unnoticed and forgotten by the busy teacher.

5. WHO DOES THE CORRECTING? In whatever plan you use in spelling, children will take tests on word lists. You know the most common practices in test correction:

1. Teacher corrects at each child's desk.
2. Tests are handed in; teacher corrects later, returns papers.
3. Teacher spells words; children correct own papers.
4. Teacher spells words; children correct one another's papers.
5. Children correct own or others' papers independently from printed list.

You will undoubtedly use several methods, varying the procedure from time to time. There is much to be said for pupils' correcting their own papers regularly or irregularly in order to develop a sensitivity to spelling errors they make in all writing. By all means, the teacher should do some of the correcting in order to become aware of each child's errors and needs. Children can be expected to make errors in correction at times, and should not be depended on completely to note their incorrectly spelled words on the tests.

We would caution teachers about permitting children to correct one another's test papers. You may permit some of this, but we would not recommend it as a regular practice. When children check tests of others, they are prone to be hypercritical, and may mark words incorrect for the slightest reason. Competition does enter in here, and it is natural to disarm one's competition whenever it is possible. Poor spellers are often embarrassed to have their low scores known by their classmates.

6. WHO DOES THE PRONOUNCING OF THE WORDS IN A TEST? We believe the teacher should. To pronounce spelling words carefully, clearly, loudly enough, using each word in a well-constructed sentence, and with a fair time allotment per word—to do this requires a skill that we believe few pupils possess. Then, too, the children should be taking the test.

7. A NEW SPELLING BATTLE TO "FITE!" As though teaching spelling isn't difficult enough as it stands, we now have a new element added to our job, and children have an additional demon with which they must deal. We refer to the rash of changed spellings which advertisers have brought upon us with an eye-catching purpose. We believe the practice has become widespread enough to warrant and require counteraction in our

spelling classes. A few examples will be sufficient: *Rite-Way*, *Rest-Eze*, *Lyk Nu Kleaners*, *Ezy-Flo*, *Kwik Heet*, *Brite Lite*, *Sno Kool*, and *Slo Brewed*.

8. **WATCH YOUR OWN SPELLING!** Whatever you write on the blackboard, duplicate for children, or write on a child's paper, in his workbook, or on any material should contain no misspelled words. Above all, in communications to the home (report cards, report letters, notes or letters), be very sure your spelling has no errors. How do you think one particular father and mother reacted to this comment on the child's report card. "Harold gets along alright in most everything. He needs, however, to improve in spelling."

SUMMARY

Although there is disagreement about the content of spelling, there is harmony on at least ten common content features listed in this chapter. Methods of teaching differ, too, from the strictly textbook-workbook program to the completely teacher-originated one. The test of these and any other methods is, obviously, how well children learn to spell. Through observation and various kinds of tests and examination, spelling ability can be determined. Some pupils will need remedial work in spelling; this is a normal aspect of any spelling program.

Spelling skill is acquired more readily by pupils when they feel a *need* to spell. Such readiness to learn augurs well for accomplishment in spelling.

While spelling is usually taught in formal sessions, it is learned also as children spell correctly in the writing activities of all other subjects.

PROBLEMS AND DISCUSSION TOPICS

1. Why is spelling considered a *writing* problem?
2. *Explain:* The English language presents a particularly difficult spelling problem because sounds are both *related* and *unrelated* to correct spelling. Cite examples in your explanation.
3. What kinds of spelling clues are provided by diacritical word markings?
4. Discuss the advantages and disadvantages of workbook-spelling programs.
5. What risks related to content are involved when teachers design their own spelling programs? List some ways for overcoming these disadvantages so that the teacher may meet particular needs of his pupils.
6. What is the best criterion of a pupil's ability to spell correctly?

7. Name some activities which build an interest in spelling by first- and second-grade pupils.
8. Debate this question in your class: "Resolved, that spelling instruction, to be effective and functional, is better taught in the upper grades through integration with other subjects than through a daily skills program."
9. How does the elementary teacher identify causes of poor spelling by pupils in his class?
10. What are some techniques which should be employed by the teacher for helping boys and girls become better spellers? In other words, if we assume that you are able to identify causal factors of poor spelling, what do you include in your remedial program?
11. What does the following statement mean to you? "Pupils should be encouraged to develop self-study habits in spelling."
12. Discuss ways by which you will be able to *individualize* the spelling program for pupils in your class.

WHAT WOULD YOU DO?

Spelling contests are a tradition in your school. After the last recess on Friday of the first week of school, your pupils challenged you when you asked them to study their arithmetic. It was "spell down" time! Every Friday afternoon!

Each year "Spelling Champs" are named in each room and in the entire school. Winners compete within the district and then in an all-city contest. Your school is recognized as the "maker of champions." You do not believe in all this.

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CHAPTER 14°

CHILDREN'S LITERATURE AND CREATIVE WRITING

The development of literary tastes and ability in creative writing is just as important to the pupil's growth in the arts as are developmental programs in music and art. Literary tastes and creative writing ability are so closely related that they will be discussed together in this chapter. Since it is most difficult to establish definite periods at which literary appreciation and discrimination really "happen" in children and since creativity is recognized as a gradual and accumulative process, this chapter is treated in a different manner than are other discussions of elementary-school subjects. Because of the nature of the curricular topics presented, the teaching purposes and procedures can best be described by omitting separate sections on theory and practice.

CHILDREN'S LITERATURE

The development of reading interests and appreciation of literature is a step-by-step process which results in pupils' growth in ability to interpret literature at increasingly higher levels of maturity. Children in the elementary school need guidance and help from many sources if books are to become meaningful in leading them to better and satisfying patterns of reading. Among practices which lead to greater interest in literature are these: Listening to stories and experience in telling stories; informal dramatizations and creative dramatics; reading aloud; choral speaking; and wide reading in areas of individual interest. There are almost limitless possibilities for including these activities in the classroom program if teachers are alert to needs, purposes, and techniques of teaching literature, and if they are not bound to a reading skills development program which leaves insufficient time for reading for pleasure and recreation.

WHAT ARE THE GOALS IN CHILDREN'S LITERATURE?

1. LOVE FOR READING. The most important purpose of children's literature in the elementary school is to foster a love for reading in the pupils.



BRING CHILDREN AND BOOKS TOGETHER.

Many children, through exposure to a wide variety of stories and poems at home, enter school with a love for literature. The kindergarten and the first-grade teachers should read aloud to pupils in introducing new stories, and teachers in later grades should follow this practice. In the middle and upper grades, teachers can help awaken interests and motivate a desire for good book selection by reading exciting passages, moving scenes, and fascinating accounts from true stories. Children can be helped to a realization that books give friends to cherish and great men to emulate. Good books describe the past and the present, they come from all parts of the world, and they enable children to perceive that greatness in people and deeds belongs to all times and all places.

The goal of a love for reading may develop in children because, through books, they learn values for living happier lives: they discover fanciful and imaginary places and entertainment; they are helped to face reality; and they find beauty, peace, adventure, the great out-of-doors. Books help children go adventuring and become a means of reducing tensions and shaping attitudes. The resourceful teacher recognizes the value of each of these factors as he helps pupils develop a love for reading.

2. **CONTINUING HABIT OF READING.** As teachers, we want pupils to form the habit of turning to good books. If the habit of reading for a pleasant

and worthy use of one's time is to be established in school, there must be time for independent reading—time for “just reading,” as well as for the regular reading program. All types of reading must be included if children are to learn to like good books: guided and unguided individual reading; reading from books, newspapers, and magazines; and intensive reading by the group. Recognition must also be given to pupil differences in interests, purposes, abilities, methods, and needs.

3. BROADENING OF INTERESTS. Teachers may guide pupils to broadened interests by helping them explore library books for information, by reading to the class stories which are related to current study units in other subjects, by providing biographical materials and authentic historical stories, and by directing pupils to locate stories and articles related to basal materials. Pupil interests are also widened when the class is encouraged to create and share group poems, plays, and stories; to read current periodicals; and to read for information in reference materials.

4. REFINEMENT OF TASTES AND APPRECIATIONS. Fine selections in literature serve as a means for the development of a love of beauty; they serve as a stimulation to the imagination and as a factor in the refinement of one's taste and appreciations. Discrimination in literary taste does not happen overnight but comes through gradually experiencing the differences between excellent and poor reading materials. Teachers have an important job to do in providing literature of high standards so that pupils develop criteria for evaluating these against comic books and poor juvenile series. It is the teacher's responsibility to share with pupils books of lasting values, those which enrich the lives of children, and those which help develop interests in the beautiful and artistic. Only by so doing can we help children develop lasting impressions which they may use for determining the quality of their reading and thus refine their literary tastes.

5. INTEREST IN AUTHORS AND DIFFERENT WRITING STYLES. The realization of this goal implies that pupils must have a wide range of literary experiences encompassing writing of many types. *Aesop's Fables*, *Pilgrim's Progress*, *Alice's Adventures in Wonderland*, *Robinson Crusoe*, *Peter Pan*, *House at Pook Corner*, *Little Women*, *Swiss Family Robinson*, along with *Mr. Popper's Penguins*, *Horton Hatches the Egg*, *Reluctant Dragon*, *Story of Ferdinand*, *Honk the Moose*, plus poetry and songs of all kinds must be read to children and by children throughout their years in the elementary school. In order to help pupils interpret authors and writing styles, teachers must understand the significance of the literature which is included in the class program. It is axiomatic, then, that teachers themselves must have developed the continuing habit of reading for their own enjoyment and enlightenment. Teachers should recognize that the ideals of every past and present culture are re-

ported in its literature, that the great writers have made rich contributions in different literary styles, and that they have a responsibility to acquaint pupils with many types of literature if a growing interest in authors and styles is to be developed.

6. **ENJOYMENT OF POETRY.** Reading poetry is a satisfying and pleasurable experience for children, one which adds to their fund of appreciation and gives an awareness of beauty and picture in words. Poetry is a means for broadening pupils' experiences; through hearing it, they begin to recognize common elements in good verse and to develop a sensitivity to the beauty and power of language: their understanding and perception of the world are sharpened through the eyes of the poet.

If elementary pupils are to widen their reading horizons by the medium of poetry, teachers must *plan* to include poetry and seek frequent opportunities to use poetry by capitalizing on spirits and moods during the day in their classes. Children must *hear* poetry read well on many occasions. Help pupils establish good listening habits and create a receptive mood by reacting to the theme or central idea of the poem. In your presentation, interpret the spirit of the poem for children. Select poems that appeal widely to both boys and girls and those which are suited to many interests and occasions. Give pupils opportunities to share poetry with the class and encourage children to create poetry and rhymes.

ROLE OF THE TEACHER IN THE LITERATURE PROGRAM

Unless the teacher recognizes that literature plays a vital role in the self-realization of the child, that it contributes to important aspects of his education, and unless he makes continual efforts to achieve those goals outlined in the first part of this chapter, his classroom will be void of good literature. The teacher himself can be the most serious obstacle to accomplishing the objectives of a good literature program.

In addition to the recommendations which have been discussed, these suggestions are offered for the teacher:

ARRANGE AN INVITING READING CORNER IN YOUR CLASSROOM. This may be a set of shelves (even four boards on cement blocks will do) or simply a table for books. Regularly rotate the books in the classroom reading center. Borrow from the school library, the public library, the bookmobile, and ask pupils to loan books from their shelves at home. Include books old and new, easy and difficult, and books below and above the children's reading levels. There are few better ways for developing literary interests of pupils than surrounding them with good reading materials.

ALLOW BROWSING TIME. Children should be given ample time to browse—to look through reading materials. Don't run such a strict class that children are fearful of going to books during free time.

ENCOURAGE INDEPENDENT SELECTION. Pupils will develop greater interests in reading if they are encouraged to choose books on their own. Some may need guidance, especially those who have not developed reading interests, but, in the main, make as much reading material available as possible, "turn them loose," and let them read.

TELL STORIES TO PUPILS. Telling stories and reading selections to pupils will motivate their desire to delve further into literature and help provide standards against which to measure their own ability to make appropriate choices in reading.

PROVIDE A TIME FOR SHARING. Make a place in your schedule when pupils may share with one another interesting stories, poems, and reports of good literature. This is *not* a recommendation for the traditional book report, which generally follows the same pattern for all pupils. In fact, we feel that the traditional book report has done as much to deaden the interest of pupils and drive them away from literature as anything we can name. We strongly urge the teacher to encourage a spontaneous sharing on the part of pupils—a report that a pupil excited about his reading can hardly wait to give. We are opposed to reading assignments which *force pupils to make a report*. Unless children are vitally interested in reporting and in listening to accounts of what others have read, you are wasting valuable school time in this procedure.

DRAMATIZE FAVORITE SELECTIONS. Plan to make literature come alive by dramatizations, pantomimes, and puppet shows illustrating story situations and characters. All pupils enjoy these activities, and they help provide inspiration for more intimate acquaintance with literature.

UTILIZE LIBRARY FACILITIES. There are usually more library facilities for children than most teachers realize. Most states maintain central libraries from which cartons of books may be borrowed. Help in selecting a variety of books is generally provided teachers by state librarians. Public librarians are co-operative, and, in most cases, librarians are available for class visitation if teachers ask for this service. County libraries, through traveling bookmobiles, are yet another source of help in the school's literature program. Finally, local boards of education maintain general school libraries and often supplement these materials from an instructional center for use by teachers and classes. In surrounding children with a variety of reading materials, utilize all available library facilities.

MAKE AVAILABLE A WIDE VARIETY OF READING. Someone has said that literary interest is "caught, not taught." If this assertion is even partially true, the teacher has responsibility to provide all types of literature in order that pupils may catch inspiration and love for good reading: biog-



THE ELEMENTARY SCHOOL LIBRARY SHOULD BE ON WHEELS.

raphies; fiction; fairy and folk tales; stories of science, adventure, love, travel, and history; and children's classics. Pamphlets, magazines, newspapers, encyclopedias, and reference readings should also be available for children. Teachers should know the resources for selecting excellent books for classes. The following sources should be consulted:

American Library Book List, 50 East Huron Street, Chicago, Ill.

Bibliography of Books for Children, Association for Childhood Education International, 1200 Fifteenth Street, Washington, D.C.

Books for Boys and Girls, Personal Book Shop, 285 Columbia Avenue, Boston, Mass.

Children's Catalog, H. W. Wilson Company, 950 University Avenue, New York, N.Y.

Junior Reviewers, 241 Greenwood Street, Newton Center, Mass.

Library Journal, 62 West 46th Street, New York, N.Y.

Among recommended magazines for children are these:

Child Life, 30 Federal Street, Boston, Mass.

Jack and Jill, Curtis Publishing Company, Independence Square, Philadelphia, Pa.

Simplified Readers Digest, Educational Service, Inc., Pleasantville, N.Y.

Children's Digest, Parent's Magazine Press, 52 Vanderbilt Avenue, New York, N.Y.

Highlights, Highlights for Children, 37 East Long Street, Columbus, Ohio

KEEP A LITERATURE BULLETIN BOARD. Draw pupils' attention to literature by an attractive bulletin board devoted to newspaper and magazine clippings about new books, authors, colorful book covers, with poems written by members of the class, original stories, illustrative pictures, and announcements from libraries about new and interesting books.

ENLIST THE INTEREST OF PARENTS. In parent contacts, discuss reading interests of children, enlist parent aid in the encouragement of independent reading by children in leisure time, and ask parents' co-operation in guiding children to more frequent use of the public library.

CREATIVE WRITING

"The average teacher feels that she knows little about creative writing. She wants to go to summer school to learn how to teach it. Creativeness cannot be taught; it can only be released and guided. This, in essence, is the job of the teacher—to release inner power into productive outer channels. The world does not need more talented children; it needs to release and develop the talents latent in all children. This does not demand creative teachers, trained in creative writing; it calls for receptive and understanding teachers."¹

Thus Mauree Applegate gives the teacher encouragement and, at the same time, an assignment. As in the teaching of music, in which the teacher need not be a musician, the teacher does not have to be a *writer* in order to direct children into activities of creative writing.

In educational workshops and conferences a question often raised is this: "Of all the subjects and areas in the elementary school curriculum, which one do you believe is least well taught?" Regularly mentioned are social studies, science, and creative writing. (These answers, incidentally, are only opinions; they are not based on research.) The authors, in their close work with and in the elementary school curriculum, see an urgent need to make creative writing a more active and rewarding aspect of children's school experiences, an urgent need for more action on the part of teachers to release the pent-up feelings and expressions children will write about.

Where creative writing has not been well directed and has not shared fairly in the program, we believe we would find teachers who (1) feel they do not have the techniques and lack even a minimum understanding of creative writing, or (2) who believe, erroneously, of course, that the little they are doing is quite enough. That "little" may be a two-week

¹ Mauree Applegate, *Helping Children Write* (Evanston, Ill.: Row, Peterson and Co., 1954), p. 1.

"unit" on creative writing; when this unit is ended, the subject of creative writing is shelved until this time next year.

For any teacher—those who feel inadequate, those who have had valuable experiences with children in creative writing, and you, who will soon have your first fling at it—we urge reading from the list of creative writing references at the end of this chapter. These more detailed and complete treatments of the subject, added to the suggestions and ideas included here, should serve to help teachers to establish and maintain a creative writing program and an atmosphere conducive to creative expression.

SOME GOALS OF CREATIVE WRITING

In this area, too, the teacher should hold constantly in mind the goals which are being sought for children—both long term goals and those more immediate. Asking yourself, "Why am I having children do this?" is as important in creative writing as in any other activity you direct.

Among the goals and purposes of creative writing, these are common:

1. To release creativity.
2. To develop in children a desire and facility for self expression.
3. To help children discover the joy and satisfaction in creative writing.
4. To stimulate imagination.
5. To help children learn how to relate and record, for themselves and for others, what has been interesting, significant, and beautiful.
6. To enhance and help build good mental health.

Such goals will not be reached by the occasional, haphazard "lesson" in creative writing or by the "one-unit" approach. Rather, it is when creative writing becomes a regular and constant activity, when children are free and encouraged to express themselves creatively at all times that worthy goals are approached and attained.

Children should write and write and write. Success begets success: enjoyable writing experiences generate more enjoyable writing experiences. Unleashed and set free to roam all over the paper, children's creativity becomes a wonderful force for enjoyable and successful living. It becomes an instrument, a tool that is very versatile in its use.

Note, for example, the following letter written from the heart by a third-grade girl to her teacher. Krissy's father called the teacher one morning to say that as he backed out of the driveway to bring Krissy to school, he accidentally ran over her cat. Krissy was so upset that her father thought it best to keep her home that day. At noon, the teacher sent home with Krissy's brother a little note to help things along. (Here the teacher was using *her* creativeness.) When the brother returned, he brought to the teacher this letter from his sister:

Dear Miss Cook
 You cheered me up because my cat
 was run over Monday.
 I was so glad to have your
 letter. His Name was Mittens.
 He was a good cat.
 Thank very much

Krissy
 Johnson

If you were Miss Cook, would you have "corrected" this letter? Had Krissy re-write it, with corrections, when she returned? Or at least have pointed out to her the errors she made? Of course you wouldn't! Not doing so suggests one technique in directing creative writing: Do not tear apart what has come from the heart.

AVENUES FOR CREATIVE WRITING

Children's experiences in creative writing can be grouped into at least five categories. Teachers should keep all these categories in mind lest the writing they direct children in be too heavily concentrated on one aspect of it.

1. FICTION. Children delight in making up stories. So do adults. Note the multitude of short stories in current magazines. The stories in the magazines of the next generation will be written by the boys and girls now in our elementary classrooms. The quality and standard of that future fiction—its literary worth—may well be determined by the quality and breadth of the experiences children have today in writing creatively.

2. POETRY. One English professor used to tell his classes that all children love poetry until some adult kills it for them. We do not believe this is always true. However, we suspect the professor was warning against practices that will cause children to dislike poetry—such activities as too much memorization; "dissecting" and analyzing poetry, its forms and technique; forced writing of poetry, and long and difficult assignments built around a poetry "unit."

Children will not create poetry until they first learn to *enjoy* it. Developing this enjoyment of poetry, then, seems a logical first step. Many children come into the school with a rich pre-school experience in poems and poetry; they come from homes where parents have read and enjoyed poetry with their children. The teacher moves on from this point, building on this interest. For those children who have little or no background or experience, an interest must be created. Both aims are accomplished, to some extent, by the teacher's reading poetry, *all kinds of poetry*. Children should be encouraged to talk about the poems read but should not

be made to do assigned work after hearing them. Having to pass a test or a written examination, or having to copy poems in a notebook will spoil the effect of poetry for many children. Soon the word "poem" will be automatically associated with uninteresting "labor."

It is important to recognize that some children may never want to create a bit of poetry, may never have any poetry to write. Some will actually be unable to, for reasons obvious or unknown. These children should not be *forced* to write poetry. No good poem will ever be dragged out of anyone.

Since some will not create poetry, another technique is suggested. Teachers are not justified in having a poetry-writing session in which all children are made to write. Neither should those who *wish* to write poetry be made to write on a subject chosen by the teacher.

WHAT IS A POEM? Would you say that a poem is a *beautiful expression*? Perhaps this is enough identification for the child's purposes. We do not want to force him into fixed and limiting stereotypes, and thus drive out creativity. Poems do not have to rhyme; they need no certain number of lines, stanzas, or verses. Length does not determine poetry. Poetry has many characteristics, but any one poem may not have all of them. The following well-expressed thought, we contend, is poetry. It was written by a fifth-grade boy.

THE COYOTE

From his secluded hide-away, above the farmer's flocks,
He reads the menu of his evening meal.

Children may come into the school from their Mother Goose poetry world with a well-established belief that all poems are like "Little Boy Blue" and "Mary Had a Little Lamb" in configuration, sound, and construction. The kindergarten and first-grade teachers should enlarge upon the children's concept of poetry as they identify for children the poetry the children express. Teachers can jot down colorful, creative, poetic remarks of children, and then duplicate them, forming individual booklets of creative poems. One teacher uses the tape recorder as a storehouse until she is ready to duplicate the material.

3. COMPOSITION. Creativity can and should flourish in the many and varied kinds of compositions children write, both in required writing and in "writing for fun." In the required composition—the paper, the report—on such a topic as "How Rice Is Grown," children may merely *copy* from an encyclopedia, textbook, or other source. This sort of plagiarism does not teach the child to organize information and to write it in his own words.

If such copying is not permitted or accepted, the required reports will soon be reflecting the creativity of the writer, though the paper may be

far from scholarly or complete. Children can be very creative as they organize and compose information which they have obtained, either from reading or from other sources. Such refreshing and original statements as the following introduction to a composition are not only possible but can become quite common when we approach creative writing from the right direction:

HOW RICE IS GROWN

The next time my Mom puts rice in front of me, I will think, "I know how you got here and what made you grow!"

Isn't this more exciting in a child's composition than the following: "The ancestor of the rice we eat today was a wild grass fringing the lakes of India and Northern Australia, called by the Hindus *nivara*"?

Another kind of composition is the *relating* composition, the "what-happened-to-me" story. It might be about a trip, a visitor, a party, any experience a child has which he *relates* in composition form. Though it is factual instead of fictional, the facts can be presented creatively.

Different still is the *descriptive* composition, in which the child recounts how something was done or made, perhaps describing how a Soap Box Derby racer was constructed or how a boat race was organized at camp.

4. LETTERS. A school office staff received from a sixth-grade girl the following letter on Valentine's Day, embellished very appropriately with red-crayoned hearts:

Dear Office People,

You have done a wonderful job in the past! I am sure you will do a wonderful job in the present! Happy Valentine's Day.

Lynn

This was not an assigned letter; it was not suggested by the teacher—we were curious and checked. It was a sincere expression from a thoughtful child. Her expression—her creativity—came to the office staff because the child was *able* to express herself, she was *free* to do so, and she *wanted* to.

This is how and when letters should be written by children, as well as by adults. The purpose is to express a thought, not to fulfill a duty. In creative writing, the urge to express an idea, a message, a thought arises, and the person reaches out for the instrument through which this expression can be given life and permanence. For Lynn it was the letter. Another time, she may use a poem or a composition.

It is defensible, following instruction in letter writing, for the teacher

to give children real experiences. It is all right to ask the entire class to write a letter during a certain period, but let them decide to whom it will be written.

Of course, teachers need to give instruction in letter writing and to correct letters the children write and envelopes they address. However, these are practice letters, ones that are not personal. But when teachers ask the children to write *real* letters—letters which will be mailed—then there should be no correcting of them, no rewriting ordered. In fact, the teacher should not read such letters at all, since they are personal.

5. CREATIVE DRAMATICS. Though more limited in its possibilities and use, writing for dramatic production, or writing plays for the express purpose of writing plays is another avenue through which creative writing can flow. Plays, skits, and vignettes can be written and presented to others. Such creative activity affords opportunities for *group* creativity, where the give-and-take of creative ideas can serve the individual child.

When children write plays, *all* children can be in the production. What an advantage over the ready-made play, which calls for certain types and certain players! When we write our own play, all can be written into it, all can have a role to play. Thus there are no hurt feelings and crushed spirits because someone is left out.

SUMMARY

Children's literature may not and perhaps should not be taught as a separate subject, since it permeates the entire language arts program. Creating children's interest in literature and helping them discover its richness and its value is a serious teacher responsibility.

The treasury that is the library must be made known to children. They should use it well as children so that they will continue to use it as adults.

Creative writing, too, is an integral part of the language arts program. We cannot command children to write creatively or tell them *what* to write. We need only to set the stage and creativity will burst forth.

PROBLEMS AND DISCUSSION TOPICS

1. The school has an important contribution to make in the development of the child's literary tastes. Discuss activities for, which teachers must plan in "whetting an appetite" for literature.
2. In the manner suggested at the top of the next page, complete a list for helping pupils reach goals in children's literature.

GOALS	SOME INSTRUCTIONAL ACTIVITIES FOR PROMOTING PROGRESS TOWARD GOALS
(1) Love for Reading	a. b. c.
(2) Continuing Habit of Reading	a. b. c.
(3) Broadening Interests	a. b. c.
(4) Refinement of Tastes	a. b. c.
(5) Interest in Authors and Styles	a. b. c.
(6) Enjoyment of Poetry	a. b. c.

3. List at least five books or stories which you consider to be basic to the literature program for each grade in the elementary school. Complete a similar list of poems. Make use of the reading references suggested for this chapter in compiling your lists. Visit a nearby elementary school and read one or two of your stories or your list of poems in a selected grade.
4. Why should creative writing be encouraged and planned for in the elementary school? Are elementary pupils too immature to do real creative writing? Discuss.
5. What are some *detrimental* activities which teachers must try to avoid in the program of creative writing?
6. Do *assigned* lessons in writing have any place in the elementary program? If so, when and for what occasions are they appropriate?

WHAT WOULD YOU DO?

Your children have written a play. It has been a worthwhile project—originating the play, dividing it into scenes and acts, making the scenery, and working the play into presentable form. Dialogue was not memorized; the children spoke freely, keeping, however, to predetermined story themes.

During the presentation of the play to parents, fellow pupils, and teachers, the unexpected happened. One boy, sensing his opportunity, spoke lines that were off-color and embarrassing. This set off the rest of the cast, and the play fell apart. Children in the audience laughed gleefully.

You are backstage.

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CHAPTER 15

HEALTH, SAFETY, AND PHYSICAL EDUCATION

The title of this chapter might have been shortened to the single word "*Health*," for safety instruction and physical education are, in fact, means used to help children develop healthier bodies. In Composite Elementary School designated periods may be set aside for physical education and for health and safety instruction. Generally, the amount of time devoted to health, safety, and physical education and the program organization will vary from one school to another, depending on adequacy of facilities, state laws, teacher interest and competence, school philosophy, and administrative leadership. Even so, there is general recognition of the responsibility of the school for providing adequate experiences for the physical development of children; for detecting, reporting, and assuming a share in the job of correcting disabilities; for maintaining safe school conditions; and for teaching safety so that pupils develop habits of avoiding health hazards. The important word in this significant area of instruction, then, is *health*.

Teachers should *first* recognize that they cannot teach health *per se*; the responsibility of the teacher is to provide an instructional program *for health*. Although many persons (teachers, parents, administrators, school custodians, and municipal personnel) are responsible for contributing to health instruction, the greatest responsibility rests with the classroom teacher. It is the teacher who must plan a program, utilizing and drawing upon other resources, which results in effective health teaching. A breakdown at the classroom level or inadequate preparation and health instruction by the homeroom teacher results in wasted time. So you become the key person in the development of a good program of health teaching in your class.

Remember that one cannot deal with health as an isolated subject. "Desirable health practices and habits are the result of proper attitudes based on a knowledge of sound health principles. For development, these

require a long period of time. Consequently, education for health is the responsibility of every teacher at all grade levels."¹

DEFINING THE PROGRAM FOR HEALTH

Health education includes all of the experiences and activities which promote the physical and mental health of pupils. For purposes of offering clearer suggestions to teachers, these programs are classified in two areas: (1) health and safety activities, and (2) physical activities.

Health education is an integral part of general education, and its purposes are compatible with basic education goals.

In the broad scheme of education, health and physical education has unique opportunities as well as responsibilities toward the child's total development. The aims of increased strength and endurance, better physical skills, and improved health practices are not only ends in themselves but they are means to greater ends. The health and physical education program, therefore, in common with all other phases of education, has as its ultimate goal the development of the whole child.²

The Greeks, the Romans, and long before them, the Asiatics provided physical training for children as a part of the educational program. Historically, education for health has been included in the school curriculum of most cultures. Today, every important list of general objectives of the elementary school includes physical and mental health as a basic objective. The New York State Education Department explains the nature of physical education in this fashion:

Physical education has frequently been described as sets of activities and its peculiar contribution described in terms of physiological, sometimes anatomical, occasionally psychological and sociological outcomes. Its activities spring from human urges to develop and maintain organic and neuro-muscular sufficiencies, physical well-being and group co-operative participation. The core of its program is those "athletics," "sports," "play," and otherwise variously described activities which are essentially vigorous and involve the whole individual and where the motivation is play.

Physical education is unique in the activities which it uses and the teaching method which it demands. "Learning by doing" is inherent in the physical education situation. It has taken a "chunk" of living and put it in the school program. Physical education makes unusual contributions to the general objectives of education because:

- (1) It provides the vigorous physical activities essential to the physical growth and development of youth and the maintenance of physical efficiency of adults.

¹ Maryland State Department of Education, *Health, Safety and Physical Education* (Towson, Maryland), 1957, p. 18.

² Chicago Public Schools, *Teaching Guide for Health and Physical Education* (Chicago, Ill.: Chicago Board of Education, 1956), p. 2.



SAFETY ON THE PLAYGROUND INVOLVES CORRECT PRACTICES ON ALL APPARATUS.

- (2) It is the predominant means for child and youth to develop skills necessary for effective body movement in work and play.
- (3) Its activities provide laboratory situations which present rich opportunities for leadership, self-realization, human relationships and civic responsibility.³

OBJECTIVES OF HEALTH, SAFETY, AND PHYSICAL EDUCATION

The following specific objectives in education for health are important:

1. Helping pupils meet evident needs of physical, mental, and social development.
2. Providing activities through which pupils may learn physical skills.
3. Helping pupils learn proper sitting, standing, and walking posture.
4. Learning and practicing safe and healthful living habits.
5. Developing muscular strength, vigor, endurance, and mental alertness.
6. Learning to co-ordinate and control body movements.

³ New York State Education Department, *Basic Statement for Physical Education, Physical Education Standards Report*, Bulletin Number 1 (Albany, N.Y.: The University of the State of New York, 1952), pp. 14-15.

7. Developing the ability to rest and relax.
8. Learning games and physical skills for leisure-time activities.
9. Providing activities and experiences which help pupils develop leadership, self-control, courtesy, initiative, and co-operation.
10. Improving neuro-muscular co-ordination; developing agility, balance, flexibility.
11. Developing social qualities of sportsmanship and fair play.
12. Developing interest in safety habits, proper health habits, physical activity, and a desire to be healthy.
13. Reading and studying about prevention and control of disease.
14. Fostering a spirit of competition.
15. Developing mental and physical fitness for living in a democratic society.

CONTENT OF INSTRUCTION IN HEALTH, SAFETY, AND PHYSICAL EDUCATION

KINDERGARTEN⁴

HEALTH AND SAFETY ACTIVITIES

Regular informal discussions of health habits.

Discuss reasons for keeping clothing clean and neat.

Incidental discussion of need for proper rest and sleep.

Talk about visits to the school nurse, the dentist, and the doctor.

Group discussion about importance of pre-school medical examination.

Regular lessons about safety on swings, slides, teeter-totter, jungle gym, and other playground equipment; in the gymnasium, in the halls, and on way to and from school.

Visits with the members of the safety patrol and girls' service squad.

Discussion of importance of reporting injuries and illnesses to the teacher.

Discussion of reasons for taking care of toilet needs promptly.

Practice safety habits: Safe walking in halls and on stairways.

Proper conduct during fire and air raid drills.

Taking turns at drinking fountain.

Taking turns on playground apparatus.

Observing playground rules for safe play.

Discuss meaning of fair play.

Discuss with pupils conditions which cause colds; what to do if one has a cold.

Talk about the importance of staying home if one is ill.

Discuss the importance of good vision and hearing.

Teachers must be alert to symptoms of these diseases: Impetigo, Ring-

⁴ See *Selected Reference Readings* for works containing courses of study and directions for teaching games and rhythmic activities listed below.

- worm, Scabies, Pediculosis, Pink Eye, Chickenpox, Mumps, Measles, Whooping Cough, and German Measles. Most city, county, and state health departments provide booklets containing screening procedures which are helpful in determining these symptoms. The school nurse can obtain these booklets for your use.

PHYSICAL EDUCATION ACTIVITIES

BIG-MUSCLE ACTIVITIES: Games and individual activities of running, jumping, hopping, galloping, and skipping. Among common games in the Kindergarten are these: Hot Potato, Circle Bounce Ball, Ball Toss, Duck on the Rock, Beanbag Spot, A-tisket A-tasket, and tandem races. Other big-muscle activities include climbing and hanging on jungle gym, crossing on the horizontal ladder, bouncing and catching large rubber balls, and kicking a soccer ball.

STUNTS: Forward Roll, Elephant Walk, work on the balance beam.

RHYTHMS: Walk, run, hop, jump, sway, and gallop to rhythm; interpretative rhythms and mimetics (imitating many kinds of movements). Common singing games are: Ring Around A Rosy; Sally Go Round the Moon; The Paw, Paw Patch; Looby Loo.

FIRST GRADE

HEALTH AND SAFETY ACTIVITIES

- Discussions about proper eating habits: importance of drinking milk; why one should not eat between meals; meaning of the word diet and which foods are included in a good diet.
- Discussions about the importance of sleep and rest.
- Regular class discussions about school safety regulations, with emphasis on understanding of the need for policies and practice drills.
- Activities, demonstrations, and the use of audio-visual aids in teaching the importance of dental examinations and care of the teeth; importance of the medical examination.
- Class discussion of need for attending promptly to toilet habits.
- Discussion of foods: a good breakfast; the value of drinking sufficient water.
- Give vision screening tests with Snellen Chart. Make such tests an occasion to teach about care of the eyes.
- Teach cleanliness, neatness, taking care of clothing, and wearing proper clothing.
- Use safety patrol members as resource persons in discussing safety.
- Teach the symptoms of minor and major communicable diseases.
- Emphasize the importance of remaining home if one is ill.
- View films and film strips about health and safety.

PHYSICAL EDUCATION ACTIVITIES

BIG-MUSCLE ACTIVITIES: Running, hopping, jumping, skipping, and tag games. First-grade pupils are beginning to enjoy simple group and circle games. Representative of these are the following: Ring Call Ball; Running Circle Pass; Ball Circle Pass; tandem races; Mother, May I?; Base Tag; Monkey in a Cage; Run, Sheep, Run; Old Mother Witch; Puss Wants a Corner; Hen and Chickens.

STUNTS: Forward Roll; Elephant Walk, work on balance beam, Backward Roll; hanging and swinging on jungle gym and horizontal ladder and swinging on rings in the gymnasium.

RHYTHMS: Marching, skipping, running, and hopping to music; rhythmic musical interpretations. The following singing games are popular with first graders: The Old Gray Cat; Farmer in the Dell; London Bridge; Ten Little Indians; The Muffin Man.

SECOND GRADE**HEALTH AND SAFETY ACTIVITIES**

Second graders have ability to attend to toilet needs promptly; however, occasionally emphasis should be given to this point.

Give vision screening tests. Use test as an approach to discussing the importance of proper eye care.

During audiometer examinations discuss proper care of the ear.

Read stories to class about significant topics of health and safety.

Make use of audio-visual aids in discussions of safety habits.

Discuss the need for vigorous exercise and outdoor play.

Take pupils on educational trips: the police station; a farm; a dairy; fire station.

Discuss regularly: personal cleanliness; care of teeth, hair, and skin; injuries, and taking care of oneself during sickness.

Talk about factors and conditions causing colds and coughs.

Read stories about proper diet and the importance of sleep and relaxation.

Give regular and continuous emphasis to safety precautions: proper conduct during fire and air raid drills; the work of the safety patrol; knowledge and practice of safety regulations at school, at home, and on way to and from school.

Invite resource persons to the class: the traffic patrolman, the fireman.

Discuss good sportsmanship, courtesy in games, and fair play.

PHYSICAL EDUCATION ACTIVITIES

POPULAR GAMES FOR SECOND GRADERS: Circle Pass (with two volley balls); Jump the Shoe; Cat and Rat; Circle Relay (running); Ball Pass Relay;

Pom, 'Pomp, Pullaway; Bird Catcher; Squirrels in Trees; Midnight; Name Call Ball; Relays: running, hopping, skipping, ball between legs, ball bounce, and jumping; Dodgeball (with Volleyball); Jump the Rope; Hopscotch; Numbers Change.

STUNTS: Practice forward rolls, backward rolls, frog stand, barrel rolls. Teach cartwheel, headstand. Free play on jungle gym, horizontal ladder, rings, and stall bars.

RHYTHMS: Here We Go 'Round the Mulberry Bush; Did You Ever See a Lassie?; Go in and out the Window; Oats, Peas, Beans, and Barley Grow; Thread the Needle; Skip to My Lou.

THIRD GRADE

HEALTH AND SAFETY ACTIVITIES

Read and discuss stories about conquering diseases; good foods; the work of doctors, dentists, and health officials.

Discuss school safety regulations, personal cleanliness, pupil responsibility for observing safety practices, sportsmanship and courteous conduct during games and play periods, proper clothing for different kinds of weather conditions.

Provide regular instruction on need to report physical difficulties such as eye strain, inability to see plainly writing on the chalkboard, dizziness, earache, headache, stomach ache, and injuries.

Study disease spread and disease control and the pupil's responsibility in helping prevent the spread of colds and other diseases.

Discuss and provide for group evaluation of these topics: following school safety regulations; personal cleanliness; working with school safety patrol and service squad.

Draw posters and write poems about safety.

Make safety notebooks.

Have class inspect playground equipment, write a report of findings, and present a panel report on steps needed to make the playground safer.

PHYSICAL EDUCATION ACTIVITIES

POPULAR GAMES FOR THIRD GRADERS: 1 Two Deep; Bear in a Cage; Tug of War; Circle Dodge Ball; Kickball; relays of many kinds.

STUNTS: Practice forward rolls, backward rolls, barrel rolls, head stands, frog stand, cartwheel, elephant walk. Teach simple pyramids; ring travel; exercises on stall bars; heel click.

RHYTHMS: Hansel and Gretel; Shoemaker's Dance; Shoo Fly; Pop Goes the Weasel.

FOURTH GRADE

HEALTH AND SAFETY ACTIVITIES

Read stories related to health and safety topics.

Relate health practices to units in social studies and science.

Study individual growth; keep a record of height and weight.

Study foods and food classifications: sweets and sugar; carbohydrates; proteins; calories.

Discuss pupil responsibility for:

- Practicing school safety regulations

- Sufficient sleep and relaxation

- Vigorous outdoor exercise

- Personal habits of cleanliness

- Observing general health habits

- Reporting illnesses and injuries

- Dental and medical examinations

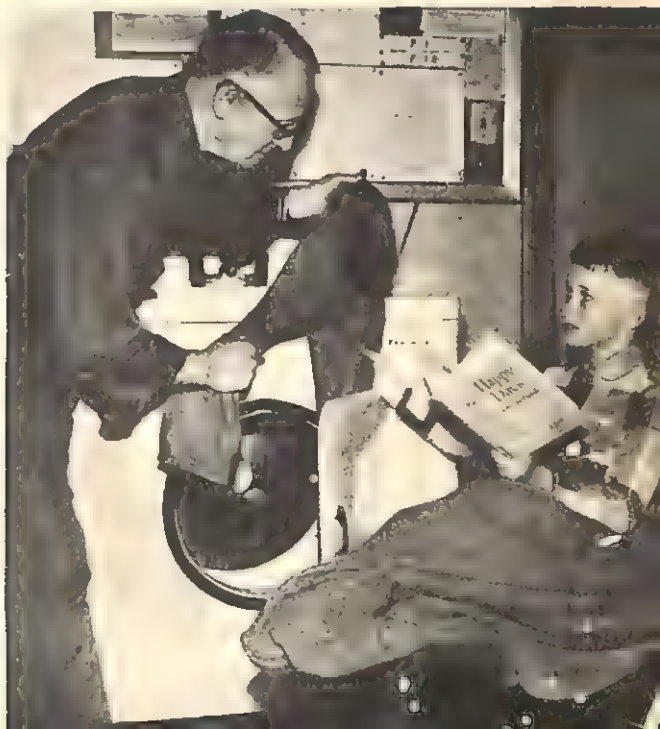
- Care of eyes, ears, and skin

- Removal of wet clothes and overshoes in school or at home

- Drying hair after swimming

- Rules of fair play and sportsmanship

THE CHILD'S HEALTH IS THE RESPONSIBILITY OF ALL SCHOOL PERSONNEL.



Make bulletin board displays, scrap books, notebooks, draw health pictures, make posters, and write stories and poems about health and safety procedures.

Study and discuss good posture.

PHYSICAL EDUCATION ACTIVITIES

POPULAR GAMES FOR FOURTH GRADERS: Three Deep; Club Snatch; Pull Across the Line; Prisoner's Base; Corner Dodge Ball; Newcomb; Kickball; Softball; catching a football, throwing a football, chest pass in basketball, and batting a softball.

STUNTS: *Practice* barrel rolls; headstand; cartwheel; ring travel; heel click. *Teach* simple pyramids; jumping rope backward; hand wrestling; rooster fight; tug-of-war; simple exercises of trunk, legs, arms, shoulders, and neck.

RHYTHMS: Heel and Toe Polka; Dutch Couple Dance; The Minuet; Virginia Reel; Cseh bogar; Captain Jinks; Swedish Klappdans.

FIFTH GRADE

HEALTH AND SAFETY ACTIVITIES

Study of good standing, walking, and sitting posture.

Presentation of classroom and school assembly programs dramatizing proper health and safety practices.

Review and practice of personal health habits: washing hands before eating; taking care of clothing and personal property; dental care; care of eyes, ears, skin, and hair; appropriate clothing for inclement weather.

Health discussions by resource persons: medical doctor, dentist, school nurse, visiting teacher, psychologist.

Study school and community health (both physical and mental) agencies and personnel.

Membership on school safety patrol and service squad.

Observing safety regulations; helping correct younger children when violations of school health and safety policies are noted.

Study of community and state safety agencies.

Study of disease control.

Study the history of disease prevention.

Recognition of the value of medical and dental examinations.

PHYSICAL EDUCATION ACTIVITIES

POPULAR GAMES FOR FIFTH GRADERS: Pin Soccer; Three Deep; Chain Tag; Beater Goes 'Round; Corner Dodge Ball; Paddle Badminton; Football Driveback; Scrimmage Ball; Touch Football; re'ays. Continue skills

teaching of softball catching, throwing, and batting; teach touch football rules; skills of punting, catching, and passing a football; dribbling, passing, and shooting skills in basketball.

STUNTS: *Practice* fourth-grade stunts. *Teach* handstand, mule kick, pyramid building; and front handspring.

RHYTHMS AND DANCES: Virginia Reel; Square Dances; Highland Schottische; two-step waltz.

SIXTH GRADE

HEALTH AND SAFETY ACTIVITIES

Practice and guidance in leadership activities for younger children in all aspects of school safety regulations; leadership of school safety patrol and service squad.

Study of the seven basic food groups and methods of selecting a good diet.

Integrate health and safety teaching with other subjects.

Presentation of programs related to health and safety for the school and the Parent-Teacher Association.

Study of good personal grooming.

Present safety programs over the school public address system to other classes.

Give leadership to school playground and school clean-up campaigns.

Report unsafe conditions on playground and in the gymnasium.

Study vaccination, inoculation, and quarantine programs.

Keep a record of personal health and growth.

Report on television safety and health programs.

Read and report on lives of famous men and women in medicine and disease control.

Evaluate lunches chosen by pupils in the school cafeteria.

Give opportunity for pupils to take responsibility for keeping the classroom clean, checking light, heat, and ventilation.

Visit the school engineer and study the heating and ventilating system.

Study the community health agencies.

Study city water purification and sewage disposal systems. Visit these agencies.

Study home, school, and forest fire control.

Study the relationship of proper light to good vision.

Study and evaluate the importance of physical exercise.

Read about the relationship between vision and proper eye care; hearing and care of the ears; importance of proper digestion; how the blood is necessary for providing oxygen to the body. In these areas, the study of health and science should be taught as an integrated subject.

PHYSICAL EDUCATION ACTIVITIES

POPULAR SIXTH-GRADE GAMES: Beater Goes Round; Capture the Flag; Protect the Pins; Progressive Dodge Ball; Twenty-one in Basketball; Football Driveback; Softball; Volleyball; Newcomb; Touch Football; relays of many kinds.

STUNTS: Review and practice stunts suggested for fourth and fifth grades.

DANCES: Square Dances; Two-and-three-step waltzes; The Rye Waltz; Sailor's hornpipe.

FROM THEORY TO PRACTICE

To meet the requirements for teaching in a self-contained classroom, the predominant organization in today's elementary schools, teachers in training must prepare for all teaching eventualities, including the teaching of physical education. Assuming that you teach your own "gym"—your own class in physical education—let us stop you and your class just before you enter the gymnasium.

TEACHING THE PHYSICAL EDUCATION CLASS

1. Do you have on paper or clearly in mind some semester or shorter-term plans for these boys and girls in physical education?
2. Do you have definite plans *for this class period*? Or will you have to decide when you get inside? Will you let the children think up something on the spur of the moment for the period?
3. Do you have well-established procedures for these children once they have stepped into the gym?
 - a. A procedure for putting on shoes or for dressing?
 - b. A time limit for getting ready?
 - c. Do the children, when ready, wait quietly for teacher instruction and direction?
4. Are you a whistle blower? One who "blasts away" all through the class to get attention? We believe the fewer the whistle blasts; the better the direction.
5. Can you stop any activity at any time easily and smoothly or do you have to "fight" for order and compliance?
6. Are you varying the activities of this class so that all phases of the physical education program are covered during the school year? Or are you overemphasizing some activity which you especially like (folk dancing, tumbling, basketball, or track and field events) or in which *you* are highly skilled?

7. Have you taught these youngsters to use safely and properly the athletic materials (balls, jump ropes, badminton birds, etc.) in the gymnasium? Do the children take good care of these articles, using them carefully and putting them away properly?
8. Are you constantly aware of health precautions? Do you require boys to remove sweaters (when they do not dress for gym, of course), permit no child to become exhausted, insist that all children wear gym or tennis shoes or shoes with rubber or composition soles? Do you observe safety practices with children who wear glasses?
9. Are you wearing, or will you wear gym shoes as you direct this class?
10. Are you aware of the physical limitations of the children in the gym class, and of any health limitations or situations?
11. Do you observe the children for subsequent guidance possibilities—children who show certain emotional weaknesses, such as poor control of temper, poor sportsmanship, tendencies to argue and quarrel, non-participation, and oversensitive feelings?
12. Are your directions and explanations given clearly, carefully, and understandably?
13. Do you have a firmly enforced and effective procedure for closing the class and leaving the gymnasium?

Make use of the physical education periods to develop warm, friendly relations with your pupils. Play with them occasionally.

In teaching games skills, much more will be achieved if they are practiced in game situations rather than in isolation.

If you are teaching in the lower grades, change activities often for maximum interest and participation.

Make use of squad leaders in self-testing and individual activities; have squad leaders work with small groups.

USE OF GYMNASIUM APPARATUS AND EQUIPMENT

The gymnasium in your school may have such installations as ropes and rings which hang from the ceiling, ladders attached to the wall, tumbling mats, jumping standards, springboards, and other pieces of equipment. Use of any of this equipment and apparatus should be contingent on three things. (1) Your ability to use it and skill in teaching it. (If you don't know the dangers involved in teaching a front handspring, for example, and if you can't "spot" a pupil as he tries this stunt, *then don't try to teach it*. There is too much danger involved.) (2) the permission of the principal or director of physical education. (3) The age and need of the pupils you teach.

USING THE "OUTDOOR" GYMNASIUM

Some elementary schools do not have an indoor gymnasium or playroom. Many of the suggestions made for indoor classes are usable for

outdoor physical education activities. With or without a gymnasium, there is an *outside* aspect to the physical education curriculum which should not be ignored. Even when a school has the most modern and completely equipped gymnasium, there are times when the teachers should not use it. Many games which are valuable in a physical education program cannot be played in a gymnasium. Touch football, softball, many track and field activities, Kick the Can, Red Rover, and Fox and Geese are among the outside activities.

We believe that much of the physical education taught in the elementary school should be taken out of doors, into the sunshine and fresh air—into a gym with the sky for a ceiling.

One worthwhile and exciting outdoor physical education project is an all-school track and field meet. Carried out in the manner of the Olympics, such an event can be educational, healthful, and enjoyable. Children from kindergarten through grade six can be on the same team, thus learning something of the spirit of co-operation and teamwork.

When the weather permits, take your children outside as much as you can. But before you take a class out of doors, have plans for worthwhile physical education activities, so that you will do more than merely conduct a recess or free-play period.

ADDITIONAL SUGGESTIONS FOR PHYSICAL EDUCATION ACTIVITIES

Make use of audio-visual aids in teaching physical education. There are available many good films which illustrate game skills and safety procedures.

Make full use of activities which children enjoy. A recent study in which 1,531 fourth-, fifth-, and sixth-grade pupils were asked to name the physical education activities they liked to participate in revealed the following information:

Swimming is the most important activity for pupils in these grades. Hiking was named by 68 per cent of the boys and 51 per cent of the girls as very important.

Archery is very important to about three-fifths of the boys and to about one-third of the girls.

Roller skating is a very popular activity for girls; more boys like ice skating than roller skating.

About half the boys of these ages enjoy the rope climb; only about 10 per cent of the girls named this activity as very important.

Fewer than half the boys and girls enjoy work on the rings.

Three-fourths of the boys and girls want to know how to catch a ball well.

Track and field activities were rated as very important by more boys than girls; more than half the boys rated these highly, whereas 30-40 per cent of the girls give them a high rating.

Maintaining good posture is very important to nearly all pupils in these grades.

Jumping the rope is enjoyed by most of the girls, but this activity is not ranked as very important by boys.

Folk dances are given a rating of important to very important by most girls; boys don't rate these as very important.

Most boys and girls enjoy such games as tennis, paddle tennis, badminton, darts, and tether ball.

Most boys think softball, basketball, and football are important. About one-third of the girls would like more help in softball.

Nearly three-fourths of all the boys and girls in these grades enjoy soccer.

Girls enjoy kickball at these ages more than boys do.

Volleyball is more important to girls than to boys.

Ninety-five per cent of the boys and girls feel that a knowledge of the rules of games is very important."

SUGGESTIONS FOR HEALTH EDUCATION INSTRUCTION

MAKE YOUR PROGRAM OF HEALTH AND SAFETY ONE OF ACTION!

The authors have said, in an earlier book, that health and safety programs need action.

The paratrooper is schooled *in the classroom*, as are the pupils in a Health and Safety class. His knowledge, of course, would be useless unless he used it to jump and to land safely. Unless we give our pupils like practice—opportunities "to jump and to land"—we have done little to educate effectively. It is in programs of practice, of action, that we often fail. We are occasionally content when we feel a pupil has *learned* the reasons for eating with clean hands, but then we permit him to mix his playground grime with his peanut-butter sandwiches in the lunchroom; or to use the stairs carelessly; or to brave recess snow without a coat. We must *teach* health and safety and then *lead* our boys and girls in practice and successful habit establishment."

Actions speak louder than words in health and safety education. A striking example is the sad case of the teacher who, directing her class in the gymnasium, was betrayed by her spike heels. She fell embarrassingly, though luckily without injury, to the floor. The children learned

⁵ New York State Education Department, Division of Health and Physical Education, *What We Like to Do, A Report by Fourth-, Fifth- and Sixth-Grade Boys and Girls on What Is Important to Them* (Albany, N.Y.: The University of the State of New York), 1954, pp. 10-55.

⁶ William V. Hicks and Marshall C. Jameson, *The Elementary School Principal at Work* (Englewood Cliffs, N.J.: Prentice-Hall), 1957, p. 151.

the valuable lesson that being ill-prepared for gym makes one vulnerable to accident; unfortunately, they also observed their teacher in the role of victim of the demonstration.

PRACTICE WHAT WE TEACH

In less dramatic and disturbing ways, teachers set examples for children in matters of health and safety. In mode of dress, conduct about the room and building, emotional control, and personal habits, teachers should be the model. For example, if you must wear glasses in the gym, then you, too, should wear guards during those physical education activities which call for such protective measures.

Teachers must guide the children away from habits of health and safety that may result in establishing poor habits or in injury or illness. There is a host of these, such as running inside the building, skipping stairs, being allowed to use the paper cutter, wash glass containers, open windows, and work with electrical equipment. (All of these can lead to accident, and we believe they should not be done by children.) Others include not using handkerchiefs, wrong use of equipment, chewing fingernails, poor posture at desk or table, playing roughly on the playground, and standing on chairs.

Teachers should strive constantly to avoid such situations as the following, in which what was known was not effectively practiced:

1. Knowing about good eye care, and then not sitting in a position to get maximum use of natural light; facing into the light; not wearing glasses that have been prescribed; failing to keep foreign objects away from and out of the eyes, and reading in dim light.
2. Understanding nutrition and discussing good eating habits, and then overeating, eating sweets to excess, eating only foods especially liked, or establishing poor habits of eating, such as constantly having snacks and permitting (on the school's part) "eats and treats" to be brought into the classroom for birthdays and other events, thus sending children to their dinners at home with appetites dulled.
3. Becoming aware of the need for cleanliness, and then coming to the school lunch table without washing, eating unwashed fruit and other handled food, eating snow, icicles, chewing pencils, and putting other unclean things in the mouth.
4. Knowing the effects of temper outbursts, harsh criticism, sarcasm, and other unkindnesses, and then as teachers, using sarcasm, being harsh and unkind to children; permitting children to be rude, sarcastic, and ill-mannered; permitting children unchecked temper tantrums, outbursts, defiance; and failing to enjoy or promote laughter and humor in the classroom or to develop courtesy and fair play.
5. Being informed about contagion and how easily germs and disease

spread, and then coming to school with the "sneezes"—with a cold. (Maybe Mother won't let the child stay home. If so, then the school counsels the home.)

These are some of the "practicals" of health education that are sometimes ignored. You will need to build for yourself a set of such "practicals" and then weave them into your teaching. One of your tools will be *observation*—observing at all times if and how well what has been taught and learned is being practiced by the children.

ACCIDENTS AND ILLNESS

WHEN THERE IS AN ACCIDENT

Regardless of how safe the school and playgrounds may be, and in spite of the care and alertness of the staff, children will have accidents at school. So important is the subject of accidents that we must highlight it. What the teacher does when there is an accident is extremely important. Even though final steps taken after the accident may be the responsibility of the principal or nurse, what **happens** right away is of serious import.

1. If the child appears to be unconscious or there is suspicion of a broken bone, do not pick him up or allow him to be moved. Send for help, turning the situation over to whoever then takes charge. As you wait, make the child as comfortable as you can and keep him warm. Keep other children away from the injured child.
2. When a child is less seriously injured (a cut, broken tooth, bump), take him immediately to the designated place—office, health room, or nurse's room.
3. Never ignore head bumps. Even though a child maintains that he isn't hurt, report any such accident to the office or parent.
4. When a child faints, keep him immobile, with his head lower than the rest of his body, if possible. Again, get immediate help.
5. Know and constantly review first aid rules and procedures. *The American Red Cross First Aid Manual* is one of the best sources.
6. Keep a clear head, and discipline your own emotions. Most of the accidents will be minor—a scratched knee, a sprained ankle, a bloody nose, a bump here or there. In many minor instances teacher sympathy and attention is all that is required.

In some schools the application of any medicines or ointments is prohibited. All that is allowed is a cleansing of the scratch or wound, usually with a soap solution.

You should learn immediately how accidents and illnesses are to be handled. Get this information from your principal or school nurse.

WHEN CHILDREN BECOME ILL

It will probably require years for you to develop the ability to separate the imagined from the real illnesses of children. Until you feel competent in discernment, we urge you to err in favor of the child. In the matter of illness, the teacher should act and proceed in order to remain in a defensible position should any attempt be made to prove negligence on his part. Being fooled by the child is much easier to accept than the criticism and even legal suits which can result if the teacher thinks a real illness is only a pretense and so ignores it.

As in the case of accident, report the illness of a child to the office or home. In both events, a phone or personal call to the home by the teacher at a later time is appreciated by parents and children.

A FINAL WORD

A major aim of this chapter has been to elevate the teaching of Health, Safety, and Physical Education in your estimation and to help you realize that they are *very important*. Physical education will probably receive its proper attention, since it is very often a required subject and will be scheduled in the gymnasium for you on a master schedule. Health and Safety may be a step-child left to the discretion of the teacher. This is not regrettable *if* the teacher uses his freedom wisely and assigns the subject a fair share of time in the program. We have observed that such attention to this subject has not always been given. Health, however, has been taught in a hit-or-miss fashion in many places and by many teachers.

To be effective, Health, Safety, and Physical Education must be practiced. The knowledge and skills learned in these classes must be reflected in the daily lives of the pupils, adding to good health itself. Helping children make this transfer is an enjoyable aspect of teaching. You will find it most satisfying when you see that what children learn is immediately and usefully put into practice.

SUMMARY

The purpose of health education in our schools is twofold. First, as day-time guardians of children, we must protect them, keep them safe, and guard their health while they are physically under our care. The second purpose is to help create sound health attitudes and practices and to provide children with the health knowledge and education required for better living today and tomorrow.

Such an important segment of the curriculum cannot be left to chance. There must be a clearly identified and well-organized health program, vigorously activated by the teacher and the school,

Much health teaching is accomplished through practice as children move about the school. Few standardized tests are required to measure teacher success in health, safety, and physical education. Results can be noted by observing children in their everyday habits, actions, and conduct.

PROBLEMS AND DISCUSSION TOPICS

1. In what respects are the goals of health and physical education related to the *general objectives* of education in the elementary school?
2. Upon approaching a financial crisis, many school districts have withdrawn physical education from the curriculum. Would not a better solution be the omission of arithmetic or reading? Or the provision that *each* subject in the course of study be cut an equal amount of time? Why drop physical education? Discuss.
3. Are elementary pupils healthier and have they developed more physical vigor, endurance, and strength with an effective physical education program in today's schools than pupils a century ago with *no* program of health and physical education? If your answer is Yes, you should find out more about the status of general physical fitness of today's children. If you answer No, then why should we take time to teach this subject in school? If pupils were in better physical condition one hundred years ago than are children today, there must be some logical reason for including physical education in the elementary-school curriculum. Explain.
4. How do teachers recognize when health habits have been learned? For example, does discussion of proper care of teeth by pupils assure that they are practicing good dental care?
5. What is the role of the teacher in health screening of pupils in his class? Explain how the teacher screens pupils for visual difficulties, for hearing deficiencies; for malnutrition.
6. If speech is the greatest single deficiency of physically handicapped children, what is your role as a classroom teacher in speech correction?
7. Defend or attack this statement: "In the upper grades of the elementary school, the physical education program more nearly meets the needs and interests of boys than of girls."
8. Outline a semester's program in physical education for a fifth-grade class which includes as many girls as boys. Indicate which activities, in your opinion, are more suited for boys; which for girls; and which are equally suited for both boys and girls.
9. Discuss some appropriate ways for securing participation in the physical education of a third-grade girl who "doesn't want to play."

10. You are scheduled to take your second grade pupils to the gymnasium on Friday morning of your first week of teaching in Composite School.
- (a) Outline *specifically* how you will organize your class to assure an orderly and effective period of instruction.
 - (b) What are some points for discussion with pupils *before* you go to the gymnasium?

WHAT WOULD YOU DO?

Alex, age eleven, comes from a well-provided-for, nicely kept home. Father works in an office; Mother is involved in community activities. Alex is never clean. He comes to school wearing soiled clothing. His personal hygiene is offensive. The children ask that he not sit near them, and with justification. Your subtle suggestions to him have not hit home. Alex doesn't seem to mind a bit, even when he is teased by his schoolmates. His mother would be embarrassed if she knew the true situation. She might also become offended. A parent calls to complain about this situation.

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CHAPTER 16

MUSIC EXPERIENCES FOR CHILDREN

Children love music just as naturally as they love play. One cannot conclude otherwise as he observes them hopping, skipping, and dancing and listens to them happily singing or humming to themselves. Rhythmic movement and music are a part of the very nature of children, and they respond immediately to musical sounds and rhythm. Musical experiences are the heritage of all children, since music has served man as a means of communication and enjoyment since earliest times. Music, too, is a universal language, understood by all people of every race and creed; it serves mankind as a means for world understanding and as source of aesthetic pleasure, beauty, and cultural enjoyment.

In Composite Elementary School, music is an integrative force for the enrichment of many curricular activities. When appropriate music experiences are included in the curriculum, they help provide a setting for the development of a spirit of fellowship among pupils, they are a positive influence on school morale, and they furnish a medium for self-expression. Music acts as a factor in the release of tension, and for many children music is an area for discovery, exploration, and development of individual talents and abilities.

The program of music presented in this chapter is not out of the reach of the regular classroom teacher. Since music in the elementary school must be a vital phase of everyday experiences for children, these suggestions are recommended for all teachers in the school.

MUSIC AND CHILD GROWTH

The teacher's understanding of child growth affects the type of music program found in the elementary schools. Lack of knowledge of how children grow and develop is evident in narrow programs of music which consist of singing prescribed selections, teaching notation, and instruction on an approved musical instrument. This kind of program is bent on "teaching" music rather than on bringing out the love for music in children, on instructing children *through* music. Teachers

who have a knowledge of how children mature, how interest in learning is abetted, and how motivation is developed, recognize the traditional music program for what, in fact, it is: dry, uninteresting, and not necessarily useful to most pupils. These teachers are well aware that pupils can be taught to appreciate good music and to enjoy singing and participating in musical activities without knowing notation or memorizing key signatures. The effect of recognizing the importance of the pupil in the music program is clarified in the following statements:

Johnny in the fourth grade can sing happily day after day without knowing even *one* signature. How is such information functional in his life? How can we help him realize the significance of F# in "America" written in the key of G? An astute teacher might try playing the tune on the piano or tuned bells, and omitting the F#. Immediately the class recognizes that this does not sound "right." "Why?" asks the teacher. "Will someone try picking it out on the bells so it *does* sound right?" Out of such an approach the child is asked to experiment, to notice, to discover, to perceive relationships, to make judgments: all this without being put in jeopardy of the "Quick, now, give me the answer!" type of classroom procedure. When Johnny finds that F# in a song serves a musical purpose, he may move naturally to a knowledge of the G major scale, its position on the keyboard, a recognition of the tonal relations involved, and finally, he may look to see how the composer indicates in the musical score that he wants the sound of the G major scale in his music. Johnny may look for other songs in the key, too. If he has a teacher with wide comprehension of the ways children learn, he may watch Helen, a sixth-grade violinist, show the class how she makes the sound of F and F#. Johnny will very likely be interested in all of this, because it involves the making of musical sound. Isn't it tedious to spend most of one's time learning about something if we never get right down to the something itself?

Thus, the teacher who is thinking in terms of child development and how children learn, is forced to use this knowledge in thoughtful, creative ways.

This is not an easy way to teach. It means that the teacher must be patient in biding his time so that learning opportunities are developed as they present themselves, resourceful in providing experiences that will stimulate children to grasp such learning opportunities, and persistent in pointing out relationships and leading children to perceive such relationships independently. It means "custom-made planning" on a day-to-day basis. Many teachers are discouraged by the challenge of such teaching and long for the "good old days" when knowledge of subject matter was enough, and an efficient lesson plan could be used from year to year, like the hand-me-down clothes of a large family (and received in much the same spirit). But other teachers have found that the reward is this: they grow with their pupils, and every year's teaching

reveals new insight into the way children learn. This, for the real teacher, is sufficient reward.¹

OBJECTIVES OF THE MUSIC PROGRAM

One of the significant purposes of the music program is to help every pupil discover some phase of music that will enrich his life. Teachers must recognize that, while few pupils can or will become skilled performers, many can become discriminating listeners. A vital purpose, too, is to give children experiences which build a favorable attitude toward music. Music must be given an appropriate place in your daily teaching because it contributes importantly to the emotional, social, and aesthetic growth of children. In this area of instruction, the pupil is helped to find aesthetic satisfaction, to discover talents important to leisure time, to develop cultural interests, to engage in stimulating group activities which give freedom to self-expression, and to develop a better understanding and appreciation of world cultural heritage.

SPECIFIC OBJECTIVES

1. To develop creative ability through music media.
2. To become a "consumer" of good music.
3. To learn how to express one's self through rhythmic responses.
4. To listen to music attentively and discriminatingly.
5. To learn some ways of evaluating music performance and composition.
6. To recognize the music of famous composers and performers.
7. To provide wide opportunities for singing and listening to choral and instrumental music.
8. To appreciate the role of music in our culture and in the history of other cultures.

CONTENT: WHAT IS INCLUDED IN THE ELEMENTARY MUSIC PROGRAM?

In the lower grades, the program is organized so that younger children may begin to develop a love for music through singing, rhythmic responses, and listening. Since music is natural to young children, the experiences in school should build upon these basic and inherent interests. Rhythms, listening, and singing provide relaxation and enjoyment. Songs are learned by rote in the lower grades, and by the middle of the second grade pupils can usually make use of easy texts in singing.

MUSIC IN THE KINDERGARTEN

SINGING. Although singing is but one of several activities in the music program, it is probably the most basic. Functionally, the various phases

¹ Maryland State Department of Education, *Planning for Effective Learning—Music* (Annapolis, Md.: Maryland State Department of Education for the Superintendent's Committee on Curriculum and Supervision, 1956); pp. 2-3.



CHILDREN HAVE A NATURAL LOVE TO SING.

of music content should merge into a total musical experience for children, and music should also be integrated into other subject areas where feasible. The kindergarten teacher should not miss chances to capitalize on the fact that the five-year-old *likes to sing*. As in other instructional areas, the effective kindergarten teacher takes the child where he is in his musical development and proceeds to help him as much as she can. The teacher finds opportunities for some children to sing for the class and to lead the class in group singing; others, who are timid about singing, are given encouragement. The kindergarten year is a time when children should *hear* good singing. It is a year for becoming acquainted with songs. In any group of five-year-olds, there may be some who are indifferent or who are not ready to sing. Don't push these or hurry them into singing but try to provide other ways for them to further their acquaintance with music. Rhythms, mimetics, and simple musical instruments may attract and hold their attention and provide the starting point they need. The kindergarten teacher should also determine the level of pre-school musical experiences and build upon them. Teachers must not classify pupils as "monotones," "non-singers," or pupils "deaf to tone and pitch." Some music educators think that there are *no* monotones among physically normal young children; that there are children who need a greater variety of musical experiences.

encouragement in singing from parents and teachers, and practice in producing tonal inflection.

In the kindergarten, rote songs such as these should be included in your program: *Farmer in the Dell*; *Hickory-Dickory-Dock*; *London Bridge*; *This Old Man*; *The Muffin Man*; *Frère Jacques*; *Rock-a-Bye-Baby*; *Away in a Manger*; *The Paw-Paw Patch*; *Looby Loo*; *Sally Go 'Round the Moon*; and *Ring Around a Rosy*. Songs about seasons and holidays, singing which can be easily dramatized, and songs which can be easily adapted to rhythmic movements should be the core of this phase of music at this grade level.

RHYTHMIC MOVEMENTS. In many ways, the activities of a rhythmic nature for the physical education periods should be integrated with those of music education. The aims are the same: the development of rhythmic response to music. In the kindergarten, these experiences become a part of your program: free, interpretative response to rhythm and music; rhythms in singing games; walking, running, galloping, and skipping to music; clapping to the beat in music; and using simple rhythm band instruments.

LISTENING ACTIVITIES. The kindergarten year is a time for much listening. Music should be provided, along with suggestions or questions by the teacher which help children know what to listen for: "What does this music remind you of?" "Is the first selection faster or slower than the second number?" "Can you hear tinkling bells (running water, thunder, a water fall) in this selection?" Children in the first year of school should have the following listening experiences: listening to phonograph recordings, to good music on the radio, to the teacher play the piano, to an upper-grade pupil play an instrument, to many beautiful songs, to familiar songs and new selections. They should dramatize movements suggested in a musical number.

MUSIC SKILLS. A start toward understanding and awareness of differences in music and rhythm should be made in this grade. If you will point out these aspects of music to your kindergartners, you will begin to lay the foundation for an understanding of music skills. Help pupils to become aware of loud and soft music, to recognize fast and slow rhythm in music, to become acquainted with music that has a steady beat or rhythm, and to know when music "goes up and down."

MUSIC IN THE FIRST AND SECOND GRADES

In grades one and two, the general purposes of music education are an extension of the goals of music education in the kindergarten: the development of appreciation for and love of good music, understanding of easy songs, and ability to use the singing voice. Primary teachers build

upon the foundation provided for the five-year-old in the following activities.

SINGING. First and second graders need and like to participate in songs which are spontaneous and joyful. Teachers must understand that joyous singing is an expression of the vitality and lively action of childhood. In these grades especially, singing should be related to experiences both in and out of school; hence, the singing program is *never* limited to a specific period but becomes an integral part of the school program throughout the day. The teacher's responsibility in these grades is to make as certain as she can that children learn to enjoy singing. Singing in first and second grades should include songs about children's interests and experiences and about persons studied in school—the fireman, the policeman, the mailman. Selections should be appropriate to the children's voice range and ability. There should be action songs, songs created by the pupils, and songs which help develop the singing voice. Courses of study and music textbooks suggest selections such as these for the primary grades: *Billy Boy*; *Old MacDonald*; *Silent Night*; *Skip to My Lou*; *Down in the Valley*; *Home on the Range*; *Oh Susanna*; *America*; *God Bless America*; *Yankee Doodle*; *Brahm's Lullaby*; *Jingle Bells*; *Away in a Manger*; *Over the River and Through the Woods*; *O Little Town of Bethlehem*; and *East Side, West Side*.

RHYTHMIC ACTIVITIES. Rhythmic activities in first and second grades consist of those which provide music for clapping, singing games, easy dances, and music for free, interpretative dramatization; marching, skipping, running, and hopping to rhythm; and the inclusion of such popular singing games as *Ten Little Indians*; *London Bridge*; *The Muffin Man*; *Farmer in the Dell*; and *The Old Gray Cat*.

LISTENING ACTIVITIES. If pupils are to develop an appreciation of music, good quality selections must be carefully chosen on the child's level of understanding. The teacher should prove that he is a good listener, too, and should not detract from a listening period by unnecessary discussion preceding a number to be heard. Point out to the class, however, that there are certain sounds which have pitch and rhythm. Children should listen for pleasure, to develop an awareness of sounds for which to listen, to learn to know different kinds of music, and to recognize instruments and music style. The following statement describes this phase of music in the primary grades:

Listening means much more than just "hearing." It means acquiring from music something which then becomes a part of one's experience. Listening is a process which is constantly active, not necessarily in terms of physical activity, but in many different kinds of responses—imaginative stories, word pictures, interest in musical settings to fine

children's poems and in voices and instruments, and others. It is also creative; it brings another and very important means of self-expression. For the same music heard by many children may open up as many interpretations as there are children in the group.²

MUSIC SKILLS. Although pupils in your class will not be able to sing with the same effectiveness, the cause of differences is likely to be inexperience rather than aural defects. First and second graders need encouragement and help in developing awareness that melody moves by steps and skips from high to low and from low to high, that music can be fast or slow, that some melodies sound alike. Children in the primary grades should be given opportunity to imitate skips in melodies, such as 5-8 or 8-5, to imitate single tones in music, and to sing phrases in songs.

MUSIC IN THE THIRD AND FOURTH GRADES

A broadened emphasis on music activities begun in the lower grades provides at the intermediate level greater opportunities for enjoyment, satisfaction, participation, and self-expression. A greater variety of music experiences is possible for these grades; more difficult songs will be sung, and greater understanding of music will be developed. Children in these grades continue to express increasing pleasure in music. They are ready for instruction in tone quality in singing. Growth in music is noticeable in the pupils' aural responses to easy, two-part songs, in their ability to sing parts interchangeably in different songs, in their greater discrimination in listening to music, and in their facility to master the autoharp, recorder-type or flute-like instruments, and melody bells with either the ordinary or chromatic scales. Regular music periods should be scheduled and followed daily in the middle grades.

SINGING. Teachers in grades three and four should begin to emphasize *tone*, *diction*, and *spirit* in singing. Pupils are able to comprehend that good tone has a relaxed fullness and clarity, that the type of song is related to tone—in fact, it determines the tone—and that the tempo of music is significant in tonal development. Diction refers to clear and precise enunciation in singing. The teacher must set a good example in his enunciation, and he should give emphasis to word endings. By *spirit* is meant the mood reflected in the singer by the selection—does the pupil “feel” what he sings? Singing means much more to children when a feeling for rhythm and mood is reflected in their performance, when there is a genuine and spontaneous response noted as they sing.

In the middle grades pupils learn songs by rote and from music books.

² Commonwealth of Virginia, *Music in Grades One through Twelve, A Tentative Guide on Curriculum Development*, XXXVI, No. 6 (Richmond, Va.: State Board of Education, 1954), pp. 23-24.

Songs of nature and changing seasons, American folk songs, patriotic songs, songs for holidays, rounds and descants, and selections³ which can be dramatized make up the program for the most part. Types of songs enjoyed by third and fourth graders are these: *Row, Row, Row Your Boat*; *Blow the Man Down*; *Go Tell Aunt Rhoda*; *On Top of Old Smokey*; *Oh Susanna*; and *Old Folks at Home*.

RHYTHMIC ACTIVITIES. In the intermediate grades, pupils are perhaps more responsive to rhythmic movement in folk dances and in singing games than at other levels in the elementary school. Boys are more courteous about accepting girls as partners than they are in the upper grades. You will have much success in teaching such dances as these: *The Shoemaker's Dance*; *Hansel and Gretel*; *Pop Goes the Weasel*; *Swedish Klappdans*; *The Minuet*; *Virginia Reel*; *Captain Jinks*; *Dutch Couple Dance*; and *The Heel and Toe Polka*.

Provide opportunity for pupils to clap counts and accented notes, to step to note values in musical selections, to practice beats of two, three, and four, and to interpret music by body movement.

LISTENING ACTIVITIES. Third and fourth graders should hear more music than they make because they are not *natural* listeners; but they need guidance and stimulation from the teacher to develop this phase of their music education. Listening to music provides a time for children to relax, to develop responsive powers of discrimination, and to help become more thoughtful listeners. Pupils should listen to become acquainted with the music styles of great composers, to hear phrases and stories in musical numbers, to recognize instruments in bands and orchestras, and to stimulate imagination. Music of other countries should be included in the listening program.

MUSIC SKILLS. Pupils need successful experience in unison singing before they can do a good job of part singing. Third- and fourth-grade pupils sing rounds, descants, and harmonic rote songs as foundation experience for greater understanding of music. If such experience is coupled with an effective listening program, pupils begin to discover primary phases of notation, syllables, and pitch names, and the media used in reading music. This does not imply traditional lessons in reading music, but rather a gradual and easy introduction to notation growing out of singing, listening, and discussion. "To teach notation first is futile for many, and dangerous for some. It may initiate more members into the already overcrowded mass of people who believe that music is limited to a few talented individuals. If only they knew how few of these 'talented few' can read music very proficiently themselves!"

³ Bureau of Elementary Curriculum Development, New York State Education Department, *Children, The Music Makers* (New York: Albany, 1953), p. 29.

Pupils in the intermediate grades should recognize that music moves up or down by steps or skips; that musical selections have a fundamental beat; and that "these together with appropriate variations of loudness and quality, combine into communicable and artistic ideas, and moods and feelings."⁴

MUSIC IN THE FIFTH AND SIXTH GRADES

In the upper grades, singing, rhythmic activities, listening experiences, and music skills are included in the total music education program. These activities, singly and together, are expanded to meet the interests and abilities of the 10-12-year-old, although the objective of growth in the development of potential for enjoyment and participation in music is the same as that for younger children. Though more growth in music skills is evident as the pupil approaches the seventh grade, the sensory enjoyment of music and the use of music as an outlet for creativity remain more important than isolated practice periods devoted to technical music. However, upper-grade pupils need to widen their understandings of music. They are ready to make use of the printed music page, and when skills are developed as a natural part of vital musical experiences, notation, syllables, scale numbers, and pitch names have a valid place in the program. A broader understanding of music provides a means for further experiencing good music and related activities. This knowledge about music should be taught as a part of regular instruction *when it has meaning* and furthers the child's understanding of music. Music textbooks and teacher's manuals for practically all series now provide excellent suggestions for the teaching of music. As a beginning teacher, you will profit by studying and using these materials

SINGING. Fifth- and sixth-grade pupils should continue unison singing, as well as upper and lower parts of two-part songs. They should also have experiences with descants, three-part rounds, and three-part chords and songs. Songs should be selected which appeal to both boys and girls; rote as well as score singing should be provided in the program, and pupils should have an opportunity to try out more difficult selections. At this age there should be several pupils in your class who are becoming proficient in instrumentation. These might be invited to accompany singing on the piano, the violin, or the flute. Give pupils a chance to lead the singing occasionally. These songs are universally popular with the 10-12-year-old: *Red River Valley*; *Cielito Lindo*; *Alouette*; *White Coral Bells*; *Swing Low Sweet Chariot*; *Erie Canal*; *Kookaburra*; *Down in the Valley*; *I've Got Shoes*; *Camptown Races*; *Blue Tail Fly*; *Home on the Range*; *She'll Be Comin' 'Round the Mountain*; *The Old Gray Goose*; and *I've Been Working on the Railroad*.

⁴ *Ibid*, p. 23.

RHYTHMIC ACTIVITIES. Upper-grade pupils are no less adept at creative rhythmic movements than the younger children, but they need to be guided and have proper motivation for body rhythm. Have small groups work out rhythmic steps and patterns to music and demonstrate their creations for the class. Learning particular dance patterns has a definite place in the fifth- and sixth-grade music program, but opportunity for pupils to create and to dramatize musical stories should also be included. Encourage pupils in these grades to create accompaniment (on the piano or on the drums) to their own dance steps and patterns. Such experiences can appropriately be included as variations in these dances: *The Rye Waltz*; *Sailor's Hornpipe*; *Two-and-Three-Step Waltzes*; *Folk Dances*; and *Square Dances*. Drums, tambourines, and the autoharp may be used by pupils to accompany rhythms.

LISTENING ACTIVITIES. Listening experiences cannot be thought of as an isolated phase of music education; they are not confined to particular periods. Listening provides much enjoyment if it is not followed by lengthy discussions which attempt technical analysis of composition and if the music has wide appeal to the class. In the upper grades, recordings of folk songs, fine orchestral selections, familiar carols, and popular music are appropriate. Growth in children's musical development is enhanced when teachers give proper recognition to the place of music in the program. Helping children recognize and love good music is at least as important as teaching them to sing or to perform on a musical instrument and probably is more important. In the fifth and sixth grades, pupils should listen to enrich knowledge and appreciation of other cultures. They should listen to folk songs and Western music; become familiar with great music literature; recognize instrumentation and recurring themes and phrases; learn differences between dance forms; and *most of all* listen to music because it fulfills an emotional need and provides a satisfactory means of appreciation and relaxation.

MUSIC SKILLS. It has already been indicated that most fifth- and sixth-grade pupils are ready to learn more about the skills upon which music is built, but such instruction must be included *as a part* of the total music program. Singing skills and music understanding are expanded to part singing, in some cases to three-part harmony. Attention of pupils can be directed so that they begin to recognize musical ideas. Teachers should point out that tones have meaning only when related to other tones; and opportunity should be given children to develop recognition of similar and unlike musical phrases and tone patterns. Growth in music skills comes through a sequential program, in which teachers throughout the grades have integrated singing, listening, rhythmic instruction, and music understanding into the total curriculum. The end-product of music awareness and understanding in the upper grades

can be noted as children grow in satisfying ways in ability to read music, to sing in tune combinations of tones, and to make functional use of notation, number, pitch, form, rhythm, and harmony.

FROM THEORY TO PRACTICE

Let us emphasize that the music program outlined in this chapter and the activities suggested for teacher direction *are designed for the classroom teacher*—for the teacher of the self-contained classroom in which he teaches all subjects. To exclaim, "I can't sing," will no longer release the teacher, in this kind of organization, from a responsibility in music education and direction. To do a good job with music, even if one has had no music training, does not require that the teacher have a flair for music. Only a flair for *teaching* is required.

Now, if you are in a school in which music—formal music—is taught by a music specialist, well and good. And in another kind of situation, you may be permitted to trade your music teaching with a neighbor across the hall and teach, in exchange, that teacher's art, or handwriting, or science. In either case, you should still engage in and enjoy music with your boys and girls.

We have stated earlier that music in the elementary school serves as an integrating force for the enrichment of many curricular activities, and that music helps release tensions. These worthy aims cannot be fully realized, we contend, if the total music experiences of the children are limited to one, two, or three formal music periods per week, taught by someone else. If music is to serve children richly and abundantly, it must be available and ready all day long at needed times and at opportune times.

VALUES OF MUSIC

Music can serve to enrich learning and classroom living as a musical break to refresh and relax and as an enjoyable activity when weather precludes outdoor recesses.

Music can enrich learning and appreciation (listening to Spanish and Gypsy music in social studies, march music in the study of the circus, and so on). It can also provide background atmosphere for certain creative activities.

Music has many potentialities for beginning the day on a positive and encouraging note as it is used in "opening" activities; similarly, it can be effectively used to end the day.

We need but to step into the kindergarten to see the best examples of music use, not as a special subject, but as a natural tool perfectly fused

into the daily life and activities of all of the children. In all grades we need to emulate the kindergarten teacher and her practices and methods of blending music into the total curriculum.

A WORLD OF MUSIC RESOURCES

You are likely to be amazed at the wealth of excellent resources on every hand. Perhaps in no other subject or activity will you find as many servants as in the area of music. The array should give confidence to the most fearful non-musical teacher. And what is most reassuring, these resources are all readily available and easy to employ. We will look at some of them now.

MECHANICAL RESOURCES

1. **THE RECORD PLAYER.** Thomas A. Edison has provided teachers of several generations with a musical workhorse which has been prominent in music education. We suspect that there are few schools in our country that do not have at least one record player available for teachers' use. Many schools provide such an instrument for each kindergarten, and often for all teachers in the early elementary grades. Record players have become necessary educational equipment.
2. **THE PIANO.** Though a piano is not an essential part of the equipment of a classroom (except for the kindergarten), it is nevertheless a splendid resource. For the classroom teacher who plays the piano, its value is obvious. If the teacher does not play, there will be others, including children, who can.
3. **THE RADIO.** Although the radio is not extremely important to the music class, it is possible that some use can be made of it in certain areas of the country. If the school has a public address system, programs of music can be piped into the classrooms as applicable and desired. FM stations, which have become quite common, broadcast excellent programs in certain localities.
4. **TELEVISION.** Children come into the schoolroom, having seen good commercial TV musical presentations at home, bubbling over with the desire to tell about them. Teachers should capitalize on all this to provide musical carry-over and musical experiences. Occasionally, educational television broadcasts are musical.
5. **THE TAPE RECORDER.** Music recorded on tape is taking its place along with disc records as a source of music listening, education, and enjoyment. The reproduction on tape, it is claimed (and with justification), is almost completely free from distortion. For the teacher who does not play the piano, a tape of piano accompaniments can be made by someone who does play. These can be used to accompany group singing (and to lead group singing) in the classroom.



SIMPLE MUSICAL INSTRUMENTS CAN BE PLAYED BY MOST CHILDREN.

6. **MELODY BELLS AND OTHER SIMPLE INSTRUMENTS.** Children can soon learn to play tunes on melody bells, xylophones and the like. Aside from the value of learning to play these instruments, children can accompany the class in group singing. Rhythm instruments, too, have many uses. Sets may be available in the school, or, better, the children can make them. Such instruments are just as effective; what is more, they provide opportunity for creativeness.
7. **MOTION PICTURE AND FILM STRIP PROJECTORS.** There are available many excellent films and film strips which provide, in themselves, a small world of musical resources. A glance through the catalog reveals the extent of these listings.

MATERIAL RESOURCES

1. **RECORDINGS.** It is becoming common for the elementary school to have a splendid library of music recordings. With this resource alone teachers can do a fairly good job of directing music in the classroom.
2. **MUSIC TEXTBOOKS.** In the field of music, too, textbook publishers have given us well-planned and attractive basic books and teacher guides. These are almost courses of studies in themselves. They provide teachers with a home base from which to make sallies into many other musical experiences.

3. **OTHER MUSIC BOOKS.** The library can be a rich resource for single books on music, for stories and information about composers, folk music, musical instruments, the opera, and music history. There are many books with collections of songs of our country and of the world to supplement songs of the basic series.

HUMAN RESOURCES

The greatest resource of all is children's natural exuberance and their love of music, their eagerness to sing and to make music. A further asset is the natural curiosity and the spirit of adventure and creativity of children, along with their freedom from inhibition. These qualities will inspire all teachers, the musically trained and the musically hesitant. Children come to us with built-in readiness for music, which is an appealing and irresistible invitation for the teacher to build and to maintain an exciting program of music in the classroom. The human resources available to the teacher are these:

1. **THE CHILDREN WHO ARE ESPECIALLY MUSICALLY TALENTED** and who play the piano or other musical instruments. Then there are those who sing very well and can lead others. Discretion must be exercised by the teacher, of course, so that such children are not exploited or over-used.
2. **STAFF PERSONNEL.** Inviting into the classroom members of the staff who play an instrument or who sing makes a music program more exciting and meaningful. Asking the custodian who plays for square dances to bring in his "fiddle" during a study of the West will make that study come to life and will add much to the morale and spirit of co-operation among the staff. Perhaps the physical education teacher has played cornet in a college dance band and still plays well. The principal may be able to lead singing. He may even be a musician in his own right. Use him. Use them all.
3. **PEOPLE IN THE COMMUNITY.** Here is, indeed, a resource that should be tapped—the community and the parent group. You will find many persons ready and eager to come into the school to make a contribution, to be "teachers for a period." It may be a Swiss yodeler, members of church choirs, a professional musician, a father and his "hi-fi" collection, Grandpa and his zither, and many more.

Almost unlimited are one's resources for the teaching and directing of music in the classroom, resources which can be molded into the total program of music education and enjoyment. These resources make an effective music program possible for the teacher who has not been trained specifically in music. Such a teacher, with the wealth of musical support at her command, can plan an entire year's program of music and still find many resources untouched.

MUSIC AND THE TOTAL PROGRAM

Threads of music should run through the cloth of the curriculum in the same manner as *spelling*, *reading*, and *language* are intertwined with almost everything that goes on in the program of studies. It is readily seen how music *can* become a part of social studies in this one example:

THE WORK OF MAN

These songs, sung or listened to, will have significance:

The Erie Canal

Song of the Volga Boatmen

I've Been Working on the Railroad

Riff Riding Song

Casey Jones

And sea chanties, cowboy songs, and on and on.

In the study of Nations and Peoples (and this is considered in every grade in some way), think of the contribution music can make in the understanding and appreciation which we want children to acquire. The American Indian cannot be fully understood and known if we omit his music. How incomplete would be a consideration of the people of Ireland without their songs and dances! The people of Mexico, of the Orient, the American Negro, the Cossacks can be more thoroughly appreciated when their music is included in our studies of them. The culture of the jungle cannot be fully known without regarding the chant and the drum. Consider the place and significance of music in the study of history, or wars and battles and struggles. "The Star-Spangled Banner" and "The Battle Hymn of the Republic" are as much a part of the history of our country as are the battles and wars from which they came.

In literature, poetry, art, drama, in physical education and in natural science, music has a role to play, a contribution to make. In the development of listening skills, so very important in the education of children, music is an invaluable tool. It would be difficult to name many areas of which some aspect of music cannot be made an integral part. The mere contemplation of its force in teaching becomes nothing less than exciting.

INSTRUMENTAL MUSIC IN THE ELEMENTARY SCHOOL

In recent years, instruction in instrumental music has made its way into the elementary-school program. This is yet another musical force that has helped to eliminate the charges of "frill" and "fad" which were once so damaging to programs of music in the school. Recognizing the importance of music in our culture, many schools have added or are adding instruction in instrumental music to give boys and girls broader experiences and greater opportunities to know the world of music.

As a homeroom teacher, you will have no teaching responsibilities in this area of music. You *will* have an obligation to support the program

and to encourage those children who participate in it. This responsibility warrants a special word. In general, the pupils who are involved in instrumental music instruction will leave your room to go to a special music teacher. This they will probably do at times inconvenient to you and to the activity at hand. Teachers often become disturbed about this and develop a negative attitude toward it and toward the pupils who leave. You may feel that the children are being "stolen" from you by the music teacher. But if you will remember that children's education comes from many sources and is directed by many persons and that no one teacher "owns" the child exclusively, you will be able to accept the situation with a professional attitude. Just as you cannot supplant the speech correctionist, the school psychologist, or the visiting teacher, you cannot give the child what the instrumental teacher can give him. Take the broader and sounder view that many persons contribute to the education of the child, that the child is much better served when he has access to the talents and direction of others as a supplement to your own teaching.

INSTRUMENTAL MUSIC IDENTIFIED

A rather common type of elementary instrumental music organization may be described as follows:

FOURTH GRADE. All children are included in a pre-instrumental music class which meets once a week. They play in unison and in harmony simple instruments such as the "tonette" or "saxette." Near the end of the school year they are introduced to the band and orchestra instruments and are permitted to play them experimentally. They are then counselled on the selection of some instrument for use the next year.

FIFTH AND SIXTH GRADES. Regular group and section instrumental instruction, perhaps twice weekly, is given during these two years to children who wish this experience. Some schools have instruments available for renting to pupils. Often children purchase instruments. In time, ensembles, orchestras, and bands are formed to develop the feeling of playing in an organized group. The aim is not to build an elementary musical organization; this is secondary. Neither is the aim of instrumental music to develop artists. Rather, as earlier stated, it is a means through which children can further explore the world of music. Ideally, and practically, all who wish to continue instrumental music in the junior high school should have the opportunity to do so. It is regrettable that some junior high schools screen out all but the best in order to build a better band and orchestra.

MUSIC CAN BE MISUSED

Music is misused when it is made a "slave" of public relations programs. Too often the burden and responsibility for the annual school program, the P.T.A. program, and the like fall heavily and often exclusively on

music. Teachers are made to harness all aspects of music into an extravaganza or spectacular to please the parents or the public. Since music lends itself so well for "entertainment" and since it is "showy," it is often misused and over-used. Music is only one aspect of the total curriculum. Its importance in the curriculum is distorted when given such prominence in school programs. It should be presented in programs no oftener than arithmetic or reading, if the aim is, as it should be, to present to parents the *total* picture of what we are attempting to accomplish in the school.

We do not believe that school programs should be primarily for entertainment. The emphasis should be on the interpretation of the educational program. If parents are entertained as we do this (and they usually are), that is all right, but the entertainment is secondary.

Having examined programs presented to parents by schools over a period of years, we wonder that parents haven't gained the conception that music is the major activity in the curriculum.

SOME CONCLUDING MUSICAL NOTES

1. If you *can* play the piano, play it judiciously when children sing. The piano often drowns out the children. It may make them too dependent on the piano for leadership. Some teachers believe that children sing sweetest and best when there is no accompaniment.
2. Starting in the kindergarten, children should be taught to know our National Anthem and the National Hymn. American folk songs and other national and patriotic songs should also be included.
3. Encourage all-school songfests and song assemblies. These are good builders of school spirit, and they stimulate singing itself.
4. Capitalize on weather, current events, historical birthdays, and the day-to-day happenings for musical inspiration and activity. Don't follow a plan so rigidly that you miss these golden opportunities to make music more usable and meaningful—and fun. In November, we once listened to a class of children singing about the falling leaves of autumn during one of the most beautiful early *snowfalls* we had ever seen. These loyal and courteous children were singing about those falling leaves with their minds, but we suspect that in their hearts they were humming "Jingle Bells."
5. If you do teach your own music periods, discipline yourself and actually *have* music at those times, as well as at other appropriate times. We have found that teachers will often forget the period, especially if they have made no plans for it.
6. Check occasionally to note whether your music classes are really only *singing* classes. Music instruction includes very much more than singing. Include a unit of study, for example, for its own sake and as a change of pace from singing and listening to music.

on such suggested topics as *The History of the Piano*, *The Origin of Drums*, *The World's Great Organs*, or *The Life of John Philip Sousa*.

7. Don't subject children to singing songs beneath their dignity. Sixth-grade boys aren't going to be overjoyed or fascinated with songs about pretty little buttercups!
8. Make certain that your bulletin boards and display cases are occasionally built around music themes.
9. Be moderate in using seasonal music. At Christmas time, enjoy the carols, to be sure, but don't over-sing them. Include, in the fall, songs other than those about falling leaves or animals going to bed.
10. When the quality of a recording is no longer good, stop using it. Scratchy, blurry recordings should be discarded as we discard used workbooks or worn-out maps.

You will find music a powerful adjunct to your day of teaching. Use it. Use it often, and use it richly. Children need music.

SUMMARY

Music is a joyous subject, one which has strong appeal for children. The elementary curriculum needs music to make it comprehensive and alive.

The classroom teacher should have many musical experiences—many musical happy times—regardless of whether or not he is a musician or a music teacher. The resources for music direction and activity are bountiful.

PROBLEMS AND DISCUSSION TOPICS

1. In what important ways does music enrich the elementary school curriculum? In your discussion of this question, point out specific situations where music has a positive effect on learning in other subjects.
2. If you are not musical or do not have special talent in music, what can you do to assure that your second-grade pupils will be given adequate training in music?
3. Perhaps one of the most ineffectively taught phases of music is appreciation. As a future elementary-school teacher, can you think of some techniques which you might use in helping boys and girls develop appreciation of good music? Outline these techniques for the grade you hope to teach; compare your suggestions

with those of another student for a different grade. Are there significant likenesses and differences in the two lists?

4. Select one area of the music program (singing, mimetics, folk dances, or pre-instrumental music) and teach the activity to your college class. Afterward, contact the principal of a nearby elementary school to find out if you might teach this activity to an elementary class. How do you evaluate yourself in this teaching? What mistakes do you feel you made? How can you improve?
5. How does the teacher proceed in "setting the stage" for a good listening program in music?
6. In outline fashion, summarize the skills to be developed in the elementary-school music program. Consider each grade at a time:

MUSIC SKILLS TO BE DEVELOPED THROUGH THE LEADERSHIP OF THE CLASSROOM TEACHER

KINDERGARTEN

<i>Skills</i>	<i>Suggestions for Teaching</i>
(1)	(1)
(2)	(2)
(3)	(3)

(Complete this outline for each grade.)

7. The All-School Operetta is a yearly feature in some elementary schools. Form two groups, those favoring it and those opposing it, and present both points of view.
8. Can you think of any reasons why the popular songs of the day should not be taught and sung in school?

WHAT WOULD YOU DO?

Having learned a number of songs about winter, your pupils ask if they might not invite their parents to come to school some afternoon to hear them sing. This strikes your fancy, for the children really do sing sweetly. All, that is, except the twins. They just can't carry a tune. Usually you ask them to sing softly; occasionally, to "just listen." Certainly if they sing they will distract from the beauty and enjoyment of the program. Besides, this will be the first time most of the parents will have been inside your room.

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CHAPTER 17

FOREIGN LANGUAGE IN THE ELEMENTARY-SCHOOL CURRICULUM

Today's elementary-school teacher is expected, with few exceptions, to be able to teach any subject in the curriculum. One of the exceptions is the subject of this chapter—foreign languages. It is quite improbable that you will be asked to instruct children in an organized and regular study of French, German, Spanish, or any other foreign language as you begin your teaching career, unless, of course, you have prepared yourself for such special teaching. To date, there are not many teachers who have prepared for teaching elementary foreign languages, though the number is increasing.

If you have concluded that the elementary-school curriculum has long been inviolately established, you are wrong. A second language—a foreign language—is just beginning to make its way into the elementary school. There is yet much pioneering to be done, though some "49-ers" have long been on the scene. Nearly four hundred elementary schools, representing practically all the states, now teach some foreign language to children in the grades. For the past twenty-five years, such school systems as Cleveland, Ohio; Great Neck, New York; Manhasset, New York; and Los Angeles, California, have had instruction in foreign language for elementary pupils.

These schools are the pioneers from which others have taken and are taking inspiration. From them, lessons have been learned and ideas gleaned. Many kinds of practices and approaches have been tried or are in use.¹ These afford any school staff and any parent group valuable

¹ Types of elementary-school foreign language instruction include these: programs utilizing specialists and high-school teachers for the instruction; programs for all pupils, in which the regular classroom teacher, trained in workshop fashion, does the instructing; those which make use of both the specialist and the classroom teacher; selective programs for pupils with high I.Q.'s; programs operated by colleges and universities in the elementary schools; programs on a fee basis taught after school or on Saturdays, generally by a specialist in foreign language; summer-school programs; and various kinds of experimental programs in college laboratory schools.

information and stimulating resources in the study and institution of a foreign language program.

YOU CAN STILL BE A PIONEER

Should you teach in a school or school system where there is no study or interest in the subject of a second language, it is possible that you could be the one to stimulate interest in such a program. If you have a foreign language inheritance or have a college major or minor in a foreign language, you may be able to incorporate into your program some aspect of this subject. From such attempts and activation of interests have sprung vigorous studies of foreign language teaching possibilities—and the establishment of a foreign language program.

During your first year or so you probably should not become the Atlas on whose shoulders a foreign language program would rest. There may already be a well-established program in your school, a study may be just beginning, or there may be no interest at all in foreign languages. In any event you will probably have little responsibility as you begin teaching. This should be so even if you do have a strong interest in languages, for the work and the responsibilities of your first year of teaching will claim your full attention and your full time, talent, and energy.

WHAT ABOUT FOREIGN LANGUAGE TEACHING IN THE ELEMENTARY SCHOOL?

While it is true that some schools already have well-established foreign language programs and others are studying the possibility, there is by no means a universal acceptance of the idea. There are two strongly opposed schools of thought on the subject. You need only turn to the educational literature (and you are urged to do so) to learn the arguments *for* and *against* the teaching of a second language to children in the elementary school. Daily newspapers and magazines are also carrying more and more articles and news stories on this timely subject. Listed below are some of the reasons found in the papers and the literature, heard at conferences, and discussed in communities, at school staff meetings, and among superintendents of schools and boards of education.

FOR THE TEACHING OF A FOREIGN LANGUAGE IN THE ELEMENTARY SCHOOL

1. The elementary-school child, even as young as six years of age, having established no barriers of fear of expression, is more accepting, more adaptable, freer from language prejudices and more adventurous in language than are older children. He is able and willing to learn a foreign language.
2. The world is growing smaller, world-wide travel and communication are increasing, and the need for language understanding and use is more imperative. The need to speak the languages of others

is paramount. "In recent years, 440,000 Americans have been living and working outside the United States. In addition, 750,000 to 800,000 Americans go abroad each year, 15,000 for study in foreign lands. Simultaneously, some 35,000 students from 126 different nations have been coming to study in 1500 colleges and universities in the United States."²

3. The conversational approach—the aural-oral method—is highly successful in the elementary school.
4. The study of foreign languages enhances the geographical, cultural and social concepts the children have of other countries and other peoples.
5. The introduction of children to a foreign language in the elementary school will make pupils less afraid of it in the secondary school and will make them want to continue it.
6. While the teacher supply for teaching elementary languages is presently limited, colleges and universities are rapidly establishing programs which will send into the elementary schools more and more elementary foreign language teachers. Publishing houses are creating books and materials designed for such programs.
7. By learning another language, children acquire new skills, a process which involves discipline, a worthy goal in itself.
8. The ability to speak a foreign language opens up new interests and affords opportunity in the areas of business, travel, study, and personal relationships with persons of other countries.
9. Learning a foreign language increases one's understanding of and facility in our own tongue, English.
10. The advent of live international television, it is predicted, is not far away. The need for knowing foreign languages—understanding them and speaking them—will strike us with a profound impact when that day comes.

AGAINST THE TEACHING OF A FOREIGN LANGUAGE IN THE ELEMENTARY SCHOOL

1. The elementary-school curriculum is already a crowded curriculum. If foreign language is to be added, something must be eliminated. What will it be?
2. Unless a foreign language is learned well and constantly used, the ability to speak and understand it is soon lost. If children begin the study of such a tongue in third grade (where it has been strongly recommended that it begin), it is not reasonable to expect that they will study it through elementary and high school without interruption.
3. Who is to determine *what* language is to be taught? How can

² W. V. Kaulfers, "Foreign Languages for Today's Needs," *Progressive Education*, XXXII (Sept., 1955), pp. 151-155.

this be determined? What children should learn a foreign language?

4. Unless well-trained teachers teach the foreign language (and they are scarce), it should not be attempted. High-school teachers should not teach it to elementary children, since few of them know the teaching needs of smaller children.
5. Our children will have little if any *practical* use of a foreign language. Few are going to visit Spain, Germany, and other foreign countries as children.
6. Some children have enough difficulty with present curricular subjects. We must not add to their burdens; we must not make the program of the average child any heavier. If the gifted children are to be taught a second language, this should be done privately, as with music, dancing, art, and other activities.
7. Until there is further clarification of the goals and purposes of teaching a second language in the elementary school and more defensible and definitive reasons for beginning a foreign language program (other than that it is the trend, and parents want it taught), schools should not launch such programs.
8. Cyltures, history, geography, and understandings of other countries and other peoples can be more efficiently learned by the study, in *English*, of those countries. With the excellence of modern reference materials, texts, library books, audio-visual materials, recordings, television, and so on, much more can be learned by study in English than by study of one foreign language.
9. The addition of a foreign language to the curriculum involves an additional cost which would be out of proportion to the good the expenditure can bring about.
10. The introduction of a second-language program, which cannot be handled by the regular classroom teacher, makes inroads on the self-contained classroom plan and even threatens it.

So go the discussions and arguments. It is worth remembering that it is a compliment to educators that so thorough a study and examination is made of a new educational idea or possibility that an idea *has* to be a good one to gain entrance to our curriculum. It is tested, pulled apart, argued about, doubted, and then tried. But that is not the end. As it is being tried, it is observed, challenged, examined, and researched. If it does not stand the test, it is rejected.

It is the belief of the authors that foreign language programs *are* coming into the curriculums of Composite School; that, before many years, most elementary-school curriculums will contain some kind of foreign language program. Something in the curriculum will have to "move over," some adjustments will have to be made. Perhaps the subject will be taught for those who wish it after the regular day's session or on Saturdays. Perhaps the length of the school day will be in-

creased, or the school year lengthened. A way will be found when the need becomes undeniable.

TWENTY QUESTIONS ABOUT ELEMENTARY FOREIGN LANGUAGE

Anyone who wants foreign languages added to the elementary school curriculum will have to find answers to these questions:

1. What language should be taught? Which one will serve the pupils best, once the language has been learned?
2. In which grades shall the teaching be done? Where shall it start?
3. During the teaching period, should English be spoken?
4. What is a good foreign language program, as distinguished from a "flirtation," an "activity," a "unit," or a "project" in foreign language?
5. Who shall determine *if* a program should be established, and *what* the program shall be?
6. Should *all* children be made to study the language? If not all, which ones?
7. Should children who start be permitted to drop the language study? If so, under what conditions?
8. How much time should be devoted to the study per week? How often or how many periods per week should it be studied?
9. Are there presently enough texts, materials, and tests to support the teacher in a program?
10. Who shall do the teaching? What preparation and training will be considered as minimum?
11. What instruments of measurement and evaluation will be used for determining the effectiveness of the program?
12. How shall pupils be grouped for foreign language instruction?
13. Should the instruction be given during the regular school day? If not, at what time?
14. Should homework be required?
15. How will the language program in the elementary school be integrated with that of the junior and senior high schools? What continuity is assured?
16. Should parent consent be obtained before a child enrolls in the program?
17. Can those participating in other activities, such as instrumental music, speech correction, and the like, also take foreign language instruction?
18. Can an elementary school child be expected to study more than one foreign language during the elementary school years? Is he capable of doing so?
19. How shall pupil progress be reported to parents?
20. What is the best method for teaching elementary foreign languages?

WHAT NEXT?

After foreign languages are safely ensconced in our elementary school curriculum, you may wonder if *this* completes the curriculum? Is foreign language to be the *final* member of our curricular family?

We hope not. We would not want to see any particular curriculum of any particular period of our history established as *the* final curriculum for all children of all eras. Just as other institutions and customs of our culture change and make adaptations, so must the schools and their curriculums change to meet new demands and different conditions.

Our curriculum should never be static, nor should it be cumulative. The curriculum should not be continuously added to, generation after generation, and never overhauled and streamlined—added to but never cut down. Our elementary-school curriculum must be under constant surveillance and study, so that no part which has lost its value is retained. Desirable new aspects of the curriculum must be admitted when they develop.

This leads us to speculate. In our generation, will we see some of our old dependables eliminated? Will we one day see *spelling* cast from our program? Can you imagine *arithmetic* no longer taught to children? Will *writing* some day be strange to the curriculum? Do you know of any subject that has been eliminated from the elementary curriculum in the past twenty years to make room for such relative newcomers as music, art, physical education, and health education?

What subject or activity is lurking just behind the corner around which foreign language is just coming? A return, perhaps, to the teaching of formal geography—"place" geography? The breaking up of *social studies* into separate subjects of geography, history, civics? In our ever-growing activity in sports in America, perhaps we will be teaching a subject known as *hunting and fishing safety*. How about *elementary astronomy*? Or *higher elementary mathematics*? Some elementary schools are experimenting with *typing* in their curriculum. Is *this* on the horizon?

Pioneering in teaching will never end. The elementary school curriculum will change. Composite School, U.S.A., will remain a dynamic force, an effective institution in each generation.

SUMMARY

Making its way into the elementary-school curriculum is the subject of foreign languages, going through the educational "growing pains" which accompanied all other subjects during the years of their admission. Its importance in the family of curricular subjects is yet to be determined.

Foreign languages will have to earn any right they might have in the elementary-school curriculum, for no subject ever enters the curriculum unchallenged. In some schools, this right has already been earned, and the subject is a regular part of the curriculum.

PROBLEMS AND DISCUSSION TOPICS

1. Prepare a presentation either in favor of foreign languages in the elementary school curriculum, or against it. Support your point of view with research and quotations from the literature.
2. Prepare answers to several or all of the twenty questions about elementary foreign language presented in this chapter.
3. It is argued by some educators that foreign language can be accommodated in the elementary-school program without eliminating any of the present subjects or lengthening the school day. They believe that less time could be devoted to some of our subjects (arithmetic, for example) without loss. What is your view?
4. Reviewing your own courses in foreign languages in high school and college, do you believe you would have benefited from having had a foreign language in the elementary school?

WHAT WOULD YOU DO?

Your school does not have a foreign language program. Your parents taught you, as a child, to speak language B, which was their native tongue. In college, you continued the study of this language and feel proficient enough in it now to organize a year-long foreign language activity for your children. Your principal and the children are very much pleased with your willingness to provide this enrichment to the curriculum. However, one of your families objects, courteously and sincerely. The parents have come to America from country B. They speak English with a strong accent—their child, in your room, has a slight accent.

"We have purposely not taught our child to speak our native tongue for fear it would make difficulty for her in speaking English correctly. We don't want others to think of her as a foreigner."

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CHAPTER 18

EVALUATING AND REPORTING

PUPIL PROGRESS

EVALUATING PUPIL PROGRESS

Teachers are interested in learning what experiences in the classroom affect behavior and in what directions. They are concerned about the progress which pupils are making in basic skills, and they are eager to know if boys and girls are able to apply fundamental learnings in their school work. Teachers also want to know what goals pupils should establish for themselves and whether or not these goals are realistic. And, of course, fundamental skills reach beyond the Three R's—are pupils learning acceptable behavior in social situations and in attitudes? Is the instructional program appropriate for optimum achievement of the objectives in the elementary school? Finally, teachers want to discover if changes in curriculum are necessary in order to better meet pupils' needs and abilities.

WHAT IS EVALUATION?

In the elementary school, evaluation consists of collecting and appraising evidence relating to behavioral change in pupils. The purpose of evaluation is to determine the extent to which basic education goals and values are being reached. Evaluation procedures may vary, because some teachers will show more interest in evaluation than others, some will understand evaluative processes more fully, and some elementary schools will have established and refined objectives which make possible effective evaluation.

Evaluation is a careful procedure; it is systematic; it searches for accurate information; it uses varied methods, and it aims at discovering information about the teaching-learning process. Evaluation benefits the school through curriculum improvement; it indicates to the teacher needed changes in instruction; and it helps the pupil better understand his progress and potential.

CRITERIA FOR JUDGING THE EVALUATION PROGRAM

Objective evaluation in education, based on valid research practice, is less than a half-century old in the United States. There have been tremendous strides in building better evaluation programs in the elementary schools; even so, educational evaluation has a long road to travel in many of our schools before we can justly proclaim the programs good.

Teachers should use the principles listed below in judging their evaluative program and in improving procedures:

1. Are you including several methods of gathering evidence on pupil progress? Are you using
careful observation?
teacher-made tests?
rating scales?
anecdotal records?
intelligence tests?
case studies?
standardized achievement tests?
permanent records?
sociometric devices?
2. Are you interpreting pupil progress in terms of the individual child—that is, are you considering *his* potential?
3. Do pupils have an important part in appraising their progress, and are you helping them set realistic goals for themselves?
4. Is your judgment of pupil growth a *continuous* process, or does it begin and end with subject-matter tests and a yearly achievement test?
5. Do you seek purposefully and record regularly evidence which is difficult or impossible to obtain by means of paper tests—for example, judgments from parents, the school principal, other teachers, the speech correctionist, the guidance counselor, and special teachers relating to behavior, attitudes, human relationships, or personality?
6. Are your interpretations of pupil performance based on some objective and standard level? Unless growth is measured against appropriate criteria, the data gathered are not very useful.
7. Do you have a *plan* for evaluation—for gathering evidence, weighing it, and recording judgments and conclusions?

WHY EVALUATE?

In addition to the general advantages for the school, the teacher, and the pupil, evaluation is significant because it

1. Aids in re-assessment of educational goals and values.
2. Helps teachers clarify purposes in teaching.
3. Provides means for analyzing methods of teaching.

4. Furnishes evidence of the degree of effectiveness of curriculum organization.
5. Gives knowledge for guiding and counseling pupils.
6. Reveals areas of instruction which need strengthening.
7. Helps teachers, parents, and pupils identify the best curriculum undertakings and methods of teaching.
8. Provides information about the achievement which pupils are making.

WHAT EVALUATIVE INSTRUMENTS ARE APPROPRIATE IN ELEMENTARY EDUCATION?

From observation of the beginning teacher and from work with student teachers, the writers conclude that the preparation of teachers in evaluation is weak. We recommend that prospective teachers and beginning teachers read additional references devoted to the topic of measurement and evaluation.¹ Among instruments of evaluation for which you will see immediate need in teaching are the following:

ESSAY TESTS. Although the essay test has been discredited by some teachers because of the subjective judgments necessary in marking it, this instrument should be used by the elementary teacher. It does provide an opportunity to examine a pupil's thinking, his proficiency in organizing his thoughts, his ability to generalize and to present evidence in support of his contentions. In constructing an essay examination, observe these practices: (a) *Ask specific questions.* For example, this statement, "Discuss corn production in Iowa," could be improved: "In order to grow corn on an Iowa farm, what climate and weather conditions are required and what is the length of the growing season? Tell how corn is harvested." Questions worded precisely tend to bring more precise answers and lend themselves to more accurate grading. (b) *Ask questions which require outlining, comparing, describing, abstracting, summarizing, defining, and explaining.*

MULTIPLE CHOICE TESTS. The multiple choice question is effective in finding out if pupils have read carefully, listened, and comprehended study topics. These tests can be brief, are easily constructed, and are quickly marked. This type of question provides more than one answer, and the pupil is generally asked to check the correct one, such as:

Wheat-growing areas in Australia usually receive:

- more annual rainfall than North Dakota wheat lands.
- less annual rainfall than North Dakota wheat lands.

¹ Two excellent treatments which give insight into evaluation for elementary teachers are: H. H. Remmers and N. L. Gage, *Educational Measurement and Evaluation*, Revised Edition (New York: Harper and Brothers), 1955; and California State Department of Education, *Evaluating Pupil Progress*, Vol. XXI, No. 6, April, 1952. Sacramento, Calif.

- about the same annual rainfall as North Dakota wheat lands.
- The lesson does not provide the answer.

TRUE-FALSE TESTS. This is probably the most popular type of test used by teachers. It seems easy to construct, is easy to mark, and there can be little argument from the pupil about his intention—he either marks the question one way or the other, and he is correct or incorrect. However, good true and false items take more time and thought to develop than most teachers give them. Consequently, even though this test is the most popular type, it is also the most abused. Too many teachers simply take statements from a textbook, change a word here and there or drop a qualifying clause, and make the question. This is poor practice, since it tests only the child's ability to recall words and word arrangements from the text and penalizes the student who thinks. Teachers also misuse this type of test by including, in most instances, too few items. Remmers and Gage conclude that these tests should usually contain not fewer than fifty items, approximately half of which should be true and half false; teachers should refrain from using "specific determiners," such as *only*, *alone*, *all*, *no*, *none*, and *nothing*; and ambiguity should be reduced by avoiding such words as *few*, *great*, *many*, and *more*.²

COMPLETION TESTS. The completion test is primarily a memory test. It can be constructed, however, so that organized thinking and generalizations are examined.³ Because so many teachers misuse this instrument of evaluation, we do not recommend it highly for the elementary school. In practice, teachers select passages from regular textbooks, omit a word, and expect the pupil to remember exactly the terminology of the author in completing the statement. *This is not good testing procedure.* Further study on your part in references such as those listed at the bottom of this page will provide means for more proper use.

MATCHING TESTS. The matching test, as generally constructed, consists of two columns of items, names, or statements. Items in one column are numbered; items in the second column have blanks which the pupil completes by correctly matching items from the numbered columns.

DIRECTIONS: Match the states in the left-hand column with capital cities on the right, by inserting the correct number in the blank. The first item is completed for you:

STATES
1. Texas
2. Oregon

CAPITAL CITIES
8 Sacramento
— Columbus

² H. H. Remmers and N. L. Gage, *op. cit.*, pp. 88-89.

³ Complete discussions of this test are included in: California State Department of Education, *op. cit.*; C. C. Ross, *Measurement in Today's Schools* (Englewood Cliffs, N.J.: Prentice-Hall, 1954); H. H. Remmers and N. L. Gage, *op. cit.*

3. Michigan	— Austin
4. Florida	— Albany
5. Illinois	— Juneau
6. New York	— Springfield
7. Ohio	— Salem
8. California	— Lansing
9. Alaska	— Tallahassee

INTELLIGENCE TESTS. In order to understand what an intelligence test is, the teacher needs to be acquainted with such terms as *mental age*, *chronological age*, and *intelligence quotient*. I.Q., or intelligence quotient, is the relationship between mental age and chronological age, and I.Q. tests measure this ratio. (Of course, *quotient* is the answer arrived at in dividing one number by another.) In determining I.Q., the mental age (M.A.) is divided by chronological age (C.A.). For example, if the mental age of a ten-year-old boy is twelve, the I.Q. is 120, determined in the following manner:

$$\frac{12 \text{ (M.A.)}}{10 \text{ (C.A.)}} = 1.2 \times 100 = 120 \text{ I.Q.}$$

(The quotient is multiplied by 100 to avoid decimal fractions.)

Intelligence tests are the instruments used in finding mental age. Many school systems use group tests, such as the Pinter General Ability Test, the Kuhlman-Anderson Test, and the Otis Quick-Scoring Mental Ability Test. These provide a fairly good indication of mental ability, but they are *not* recommended for children who need special attention and counseling. In such cases, an individual intelligence test should be administered. Among those widely used are the Stanford Binet Scale and the Wechsler-Bellevue Intelligence Scale for Children.

INTELLIGENCE TESTING IS NOT YOUR JOB

We are aware of the fact that a few school systems ask elementary teachers to administer, mark, and interpret group intelligence tests, but we think *this practice is unwarranted, and in fact, harmful*. No one should attempt this procedure unless he has had careful preparation in psychology, including psychological statistics and an intensive internship under the supervision of a well-qualified psychologist. Let's assume, however, that intelligence testing in your school system is completed by competently trained people and that, as a part of your class records, you are provided I.Q. scores for your pupils. What do you do with them? How do you use them?

WISE USE OF I.Q. TEST SCORES

The I.Q. test provides a fair amount of information about the learning aptitude of pupils. It is well to remember, however, that I.Q. test scores fluctuate, and that two tests will seldom give identical scores for the same pupil. It is also fairly well established by research that I.Q. test scores may change from one year to the next. We are not saying that you should take the scores with a grain of salt—they are useful if inter-

preted correctly. But the teacher who draws hard and fast conclusions about the mental capacity of a pupil on such evidence is making a serious error.

A good I.Q. test gives an estimate of some of the important kinds of abilities possessed by the child. For example, you may reach general ideas about Mary as follows: she has an excellent memory; she is just fair in solving mathematical problems and seeing relationships in number; she shows good ability to reason; she has superior verbal fluency; and she perceives rapidly.

As a result of an I.Q. test, the school psychologist or the guidance counselor may be able to make these observations about Paul: "Paul has what is considered to be normal ability. He is definitely interested in things mechanical and shows decided ability in arithmetic. He is, perhaps, little interested in the process of persuading others to see his point of view; and if he did try, he might not be very successful. He is also interested in science. Art, music, and creative writing are not strengths for Paul." If the counselor examined his achievement test results, he might add these suggestions: "For the most part, it would seem that Paul is working up to the level of his general ability. However, he could profit from a more challenging program in arithmetic, and he should be given opportunity to study advanced material in science. He needs encouragement to participate more in group work, discussions, and pupil-planning sessions. Are there greater possibilities for relating mathematics and science to music? After all, music is related to mathematics, and he should be helped to discover this relationship. Perhaps he should also be encouraged to find out what uses the scientist makes of color and art."

Careful interpretation of the I.Q. test can be most valuable in helping the teacher analyze strengths and weaknesses and plan a more effective, individualized study program for the pupil. I.Q. test scores will also help the teacher examine the general level of his instructional program. Is he expecting most pupils to do more work than they are capable of mastering? Is the program for talented pupils set at a level high enough to challenge them? Has he been expecting unrealistic scholastic performance from a few students who are really working at their level of ability but who are still retarded?

Teachers are helped in securing answers to these questions and in adjusting instructional standards to more nearly coincide with scholastic aptitude. Intelligence tests, used wisely, constitute an important part of the teacher's program of evaluation

ACHIEVEMENT TESTS. The achievement test is an examination used to discover the status and progress of pupils in various subject-matter areas. It is an instrument developed through research, and objective analysis of hundreds of thousands of pupil test scores has resulted in the establishment of norms. These norms are usually expressed by grade level (3rd grade, 6th month = 3.6), and they provide teachers with an indication of the pupil's general level of achievement.

A great deal of what we have said in the discussion of intelligence tests applies to the use of the results of an achievement test. How the scores are interpreted and used determines the value of the achievement test. According to established norms, for instance, a third-grade pupil should have subject-matter scores near 4.0 when he completes this year of school work. This means that the pupil has a score equivalent to the average score of hundreds of thousands of children who are completing this same grade. We must avoid snap judgments that one pupil is inferior or superior, that the teacher is poor or excellent, that the curriculum is ineffective or effective, or that the subject-matter content is inadequate or fully adequate. There are so many variables affecting achievement test results that such conclusions may be definitely erroneous. Teachers should avoid them, and they should also be quick to point out the fallacy of such inferences if made by principals or other school administrators.

VALUE OF THE ACHIEVEMENT TEST

The achievement test is *one* means for helping teachers identify instructional areas which may need some attention. The most important value is that the achievement test, when analyzed carefully for the individual pupil, is an effective diagnostic tool. There are other values of these test data, such as the provision of information about range in total class achievement, about needed procedures for individualizing instruction, and about general class subject-matter deficiencies. *But diagnosis of individual instructional needs is the real reason for the achievement test.* The Research Department of the Pasadena Public Schools, Pasadena, California, prepared the following instrument to be used by the teacher in interpreting achievement test scores and in developing an improved teaching program. Evaluation in elementary education would be improved if more teachers used achievement test results in the following suggested manner:

INTERPRETATION OF RESULTS ON STANDARDIZED ACHIEVEMENT TEST⁴

School _____ Date of Test _____

Teacher _____ Grade _____ Number Tested _____

I. GROUP DIAGNOSIS

How does the class median compare with the Expected Grade Placement for the class in:

	CLASS MEDIAN	EXP. G.P.	DIFFERENCE
Reading Vocabulary _____			
Reading Comprehension _____			
Arithmetic Reasoning _____			
Arithmetic Fundamentals _____			
Language _____			

⁴ California State Department of Education, *op. cit.*, pp. 34-35.

Are there any points of over-emphasis or under-emphasis indicated by the above comparison?

II. COMPARISON OF PUPILS' TEST SCORES WITH THEIR DAILY CLASS WORK AND WITH MEASURES OF THEIR CAPACITY

1. Which children did less well on the test than you thought they would? What factors might account for the difference? (temporary physical condition, poor attitude at time test was administered, poor retention of skills learned previously, good work habits and attitudes in class which cause the pupil to be considered "a good student" even though achievement is not high; desirable personality characteristics which affect the subjective judgment of the teacher)

NAME	TOTAL G.P.	POSSIBLE EXPLANATION
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2. Which children did better on the test than you thought they would? What factors might account for the difference? (Lack of interest in current school work, personality characteristics which affect adversely the subjective judgment of the teacher, etc.)

NAME	TOTAL G.P.	POSSIBLE EXPLANATION
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3. Which children make a Total G.P. on the achievement test which was markedly (one or more years) below their capacity (Exp. G.P.)?

NAME	EXP. G.P.	TOTAL G.P.
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4. Which children are markedly (one or more years) above the class median in Total G.P. Are they challenged by their school experiences?

NAME	TOTAL G.P.
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III. ANALYSIS OF INDIVIDUAL SUBJECT WEAKNESSES

5. Which children are working one year or more below their capacity (Exp. G.P.) in reading?

NAME	EXP. G.P.	READING G.P.
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6. Which children are working one or more years below their capacity (Exp. G.P.) in arithmetic?

NAME	EXP. G.P.	ARITH. G.P.
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7. Which children are working one year or more below their capacity (Exp. G.P.) in language?

NAME	EXP. G.P.	LANGUAGE G.P.
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8. What children have Reading Comprehension Grade Placements which are one year or more below their Reading Vocabulary Grade Placements? Could these pupils be helped to improve their "reading for understanding" by the use of less difficult reading materials, more "free reading" at school and at home and/or specific help in reading for central thought?

NAME	READING VOCABULARY	READING COMPREHENSION
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9. Which children have Arithmetic Reasoning Placements which are one year or more below their Arithmetic Fundamentals Grade Placements? What arithmetic concepts seem to be causing difficulty? In which cases does a low reading score indicate that inability to read word problems is one cause of difficulty?

NAME	ARITH. REAS.	ARITH. FUND.	READING TOTAL
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10. Which children have Arithmetic Fundamentals Grade Placements which are one year or more below their Arithmetic Reasoning Grade Placements? Are special practice experiences needed to re-enforce learnings, or does the pupil fail to understand certain basic processes?

NAME	ARITH. REASONING	ARITH. FUNDAMENTALS
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IV. NEED FOR MENTAL ABILITY TESTING

11. Expected Grade Placements were not listed for the following pupils. They should be given an intelligence test as soon as feasible.

NAME

12. Which children have Total G.P.'s which are markedly (one year or more) above their Expected Grade Placements? Such a difference suggests that the intelligence quotient used in computing the Exp. G.P. is probably too low and that the pupil should be re-tested for mental ability at the next opportunity.

DETERMINING SOCIAL ACCEPTANCE: THE SOCIOGRAM. A different kind of appraisal technique available to the elementary teacher is the sociogram. Sociometry is the study of the relationships among persons in a group, and the sociogram is the instrument used by the teacher in examining the degree to which each child is accepted by other children in the class. It is important for the teacher to know which children are rejected or isolated by the group in order to arrange activities through which these pupils may work with leaders so that social acceptance may be increased. The sociogram also reveals pupils who are considered leaders, and it helps identify closely allied small groups within the class. It is an interesting fact that beginning teachers generally do *not* recognize the real leaders of the class until a sociogram has been constructed.

At the elementary level, the sociogram is easily completed. The usual procedure is for the teacher to ask pupils to name, in order, three pupils with whom they would like to work on a committee assignment. The job may be something like making a social studies mural, working together on school safety slogans, or serving on a committee to plan a class party. It is important that, insofar as possible, committee assignments be made so that each pupil may get at least one of his choices.

In constructing the sociogram, pupil choices are first tabulated in chart form, as follows:

SOCIOMETRIC CHART

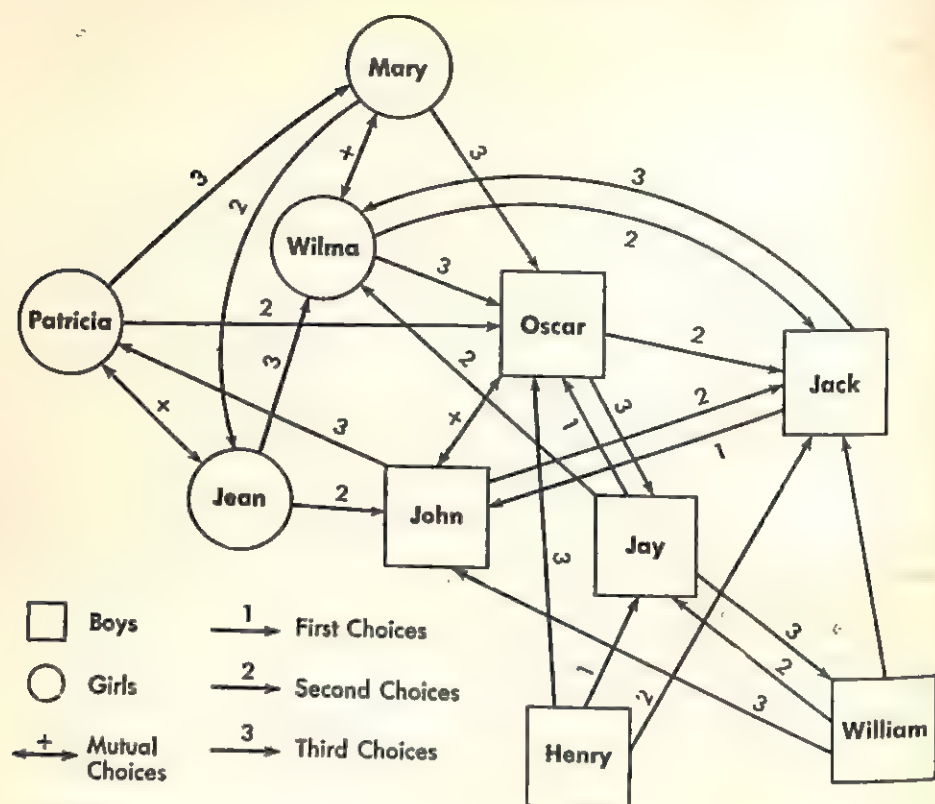
Pupils	Choices—1st, 2nd, 3rd	Brown, John	Crowell, Mary	Felts, Jean	Grow, Henry	Higgs, Oscar	Kleiber, Jay	Loomis, Wilma	Moore, Patricia	Pryhoski, Jack	Stevens, William
Brown, John						1			3	2	
Crowell, Mary				2		3		1			
Felts, Jean	2							3	1		
Grow, Henry						3	1			2	
Higgs, Oscar	1						3			2	
Kleiber, Jay						1		2			3
Loomis, Wilma			1	3						2	
Moore, Patricia			3	1		2					
Pryhoski, Jack	1					2		3			
Stevens, William	3						2			1	

CHOICES:

John Brown—1st choice, Oscar; 2nd choice, Jack; 3rd choice, Patricia.
 Mary Crowell—1st choice, Wilma; 2nd choice, Jean; 3rd choice, Oscar;
 and so on.

The most popular pupil in class is Oscar, who was chosen at least once by six pupils. Evidently Wilma is the best-liked girl in class. Mutual choices (having chosen each other) were Jack and Oscar, Mary and Wilma, Jean and Patricia, and Jay and William. Henry is rejected—no one chose to work with him—and William is also nearly isolated in the class.*

When the sociometric chart has been completed, a graphic presentation, with the most popular pupils usually placed in the center of the sociogram, can be made by indicating choices like this:



SOCIOGRAM

Knowledge gained by this sociogram may be used in these ways. Henry needs to be brought into group acceptance. His first choice was Jay, who is accepted by the class, and one of Oscar's choices was Jay. If Henry could be assigned to work with Jay and if his particular job could be that which builds on his strengths and interests, his contributions could thus be brought to the group's attention. The fact that two of the class leaders are in his group brings more ready acceptance of his work for him. There is evidence that the girls in this class tend to be rather isolated as a small group. (If the sample taken had been a normal class in size, more tightly knit groups could have been identified.) This close association may be by choice, or these pupils may, in fact, be isolated by the class. Encouragement by the teacher of more groupings that include both boys and girls is desirable. If definite cliquishness, which may impede smooth running of the class, seems to be developing, the sociogram helps identify the members of the cliques. Through choices expressed by members of a small group for other pupils outside the clique, some progress can be made toward breaking up the small group or at least expanding its membership for positive class results.

Sociometric information may be used also in gaining acceptance of

modifications in school regulations. By working through Oscar, Wilma, and Jack, the teacher can secure class acceptance of a change more easily than by concentrating on other pupils.

REPORTING PUPIL PROGRESS

It was stated previously that one important purpose of educational evaluation is to provide evidence of the change in the degree of learning, behavior, and social or human relationships by pupils. The school uses reports to inform parents and pupils about this status and progress over a period of time. Reports, whether they are oral or written, serve many purposes. A report may influence a pupil's idea of his own progress. It can lower the morale of pupils, or it may act as one factor in securing more effective results.

Reports also have a tremendous influence on the attitudes of parents toward teachers and toward the school. The report may alienate parents, or it can be an instrument of building further the relationships between parents and the school. Parents are influenced in their attitudes toward teachers by the kind of report that is given about children.

REPORTS SHOULD HELP PARENTS UNDERSTAND CHILDREN BETTER. In this respect, the report must do more than give evidence of how the child is performing. Parents want to know why the child is getting along as he is. The report should spell out plainly what and how the child is doing in school, give evidence to support these statements, and offer suggestions for help where needed. If progress reports do not include these elements, then possibility for change and improvement in the report form should be given serious consideration. It is recognized that the beginning teacher may not have a great deal of influence in changing the school's reporting process—you will use the method adopted in your school wherever you teach. However, this does not mean that you must be completely satisfied and make no suggestions for improvement. Every teacher has a responsibility to his pupils, their parents, the school, and to himself to analyze the method of reporting pupil progress and to seek ways for making it a better instrument.

CHARACTERISTICS OF GOOD PUPIL PROGRESS REPORTS

PUPIL PROGRESS REPORTS ARE THE RESULTS OF CO-OPERATIVE EFFORTS. Effective pupil progress reports result from opinions, judgments, and co-operative work on the part of teachers, school principal, and parents. School people know that the kind of pupil progress report used is considered extremely significant by parents. Bitter school controversies have arisen over parent discontent with pupil progress reports. Experience has shown that the best procedure is to secure parents' opinion, suggestions, and help in decisions regarding pupil reports. Any proce-

sure must be believed in and understood by those using it before it can effectively meet the purposes for which it was designed.

PUPIL PROGRESS REPORTS SHOULD INDICATE ACADEMIC PERFORMANCE. For most parents, information concerning academic performance of their child may be the most valued part of a pupil progress report. Parents want to know—and they should be told—the degree of scholastic achievement and progress of their child. Different report forms will have different ways of providing this information. The oldest and perhaps most widely used, but least effective, is the report of subject-matter performance by the grades of A, B, C, D, and F. It should be noted, however, that this form of reporting is rapidly decreasing. Another technique to report academic performance makes use of checking descriptive statements:

SCHOLASTIC PERFORMANCE

SUBJECT	SUPERIOR PROGRESS	GOOD PROGRESS	AVERAGE PROGRESS	POOR PROGRESS
Reading		✓		
Language Skills			✓	
Arith. Computation	✓			
Arith. Problem Solving	✓			
Music				
Art			✓	
Science		✓		
Handwriting				
Social Studies		✓		
Spelling		✓		
Physical Education			✓	

Another popular way of reporting scholastic performance reduces the number of categories used in the A, B, C, D, and F scale to three and changes the letter markings, thus:

E—Excellent Progress
S—Satisfactory Progress
N—Needs Improvement

Instead of receiving an A, the pupil is given an E in this report. Little or no distinction is made between good and average progress. The users

of this type of reporting claim to have taken away some of the stigma of failure by using the term *Needs Improvement*.

PUPIL PROGRESS REPORTS SHOULD BE CONCERNED WITH EMOTIONAL WELL-BEING. The importance of emotional security and the absence of difficult emotional blocks are so positively correlated with success in school that parents should be informed of the child's emotional well-being. We doubt seriously whether this information can be provided appropriately in a routine, written report form. Katherine D'Evelyn strongly supports the conference procedure in reporting to parents emotional factors which impede scholastic progress.

In an ideal conference, the purpose for which it was held has been achieved and the teacher has been able to establish a feeling of true partnership with the parent. Each participant should genuinely feel that the other is concerned with the success and happiness of the child. The parent should feel that he better understands the school and the program that is being planned for his child. If the conference was a reporting one, the parent should feel he has gained a more complete evaluation of the child than he could gain from a report card or a written letter. He has gained qualitative information that is important to know. For example, it is not enough to know that the child is learning; it is also important to know whether the child learns with zest or only under duress.

It is important to know that the child gets along well with others, but also important are the kinds of relationships he forms. Does he reach out for others, or does he wait for them to come to him? Is he a follower or a leader? Does he need help in making social contacts? If the conference was a problem-solving one, the parent and the teacher should feel they have laid the ground-work for co-operative collaboration and that the way is open for more conferences.

The ideal conference is a "two-way street"; it is one in which both parent and teacher contribute, with the parent feeling completely free to ask questions. Teachers use a vocabulary that is clear to them but not to parents. Unless the teacher is careful of his words or makes the parent feel free to question, many statements may be misunderstood. To make the conference a "two-way street" requires time. The conference cannot be rushed through in fifteen or twenty minutes with the teacher doing all the talking.

The ideal conference is also one in which there are no "dead-ends." A "dead-end" is just what it sounds like. The teacher tells the parent that the child is not learning or that the child is not getting along well with others. Then the conference ends. There is really little use in telling parents these things unless the teacher goes on to explore and plan. Parents do not know how to solve these problems alone; they look to the school and the teacher for guidance. If the teacher goes up a "dead-end" and stops, he is assuming that the parent can do something about these things. The parent has the right to an honest evaluation of the child's progress and adjustment, but this is not enough. Alone, the parent cannot make the child learn, nor can he make him get along better with others. A conference with a "dead-end" is no better than a report card.

that gives failing marks and shrugs off any further responsibility. The teacher and the school are failing to fulfill their functions when this happens.⁶

PUPIL PROGRESS REPORTS SHOULD BE UNDERSTOOD BY PARENTS AND PUPILS. Teachers have been on the receiving end of jokes and cartoons by comedians because of "educationese"—the terminology often used to report pupil progress and behavior. Such terms as "socially maladjusted," "minimal development," "physically antagonistic," "undernourished emotionally," or "sibling relationship" (terms actually taken from reports to parents), have no place in reports of this kind. If Michael can't get along with others on the playground during the recess period, his parents have a right to know about it in words they readily understand. *Don't say:* "Michael shows evident regularity of physical animosity toward his peers." Reports should also be organized so that parents can follow and comprehend the information they contain. Complicated tables, profiles, graphs, and poor organization decrease the chances that purposes will be understood and something done about them.

PUPIL PROGRESS REPORTS SHOULD TELL THE "GOOD THINGS," TOO. One fundamental purpose of the progress report is improvement in the child's academic work, his behavior, or his attitude. You will probably never teach a child who does not need some improvement somewhere or about whom you cannot find some complimentary remark to make. The report for the elementary pupil should not cause total dejection on the part of the child. There should always be noted some avenue for improvement, some remarks concerning the things the child does best, and some description of his contributions and his strengths.

PUPIL PROGRESS REPORTS SHOULD BE DIAGNOSTIC IN NATURE. The reports to parents by teachers should detail what degree of progress a pupil has made. That is not all. It should provide supporting evidence. Why does the child behave as he does? What are the specific causes of his difficulty in reading or arithmetic? Telling the parent that the pupil is below grade level in reading is probably no revelation. Parents usually know that. What they probably do not know is the cause of the low performance and the remedy for it. Hence, the report ought to diagnose the problem objectively for the pupil and his parent.

PUPIL PROGRESS REPORTS SHOULD RELATE PERFORMANCE TO STANDARDS. What does an "S" on the report form mean? What are the standards of achievement expected of a fourth grader in spelling? Academic performance, social behavior, or personal attitudes must be measured against some standards in order to be meaningful and in order that progress can be made toward desired objectives. Parents must be cogni-

⁶ Katherine E. D'Evelyn, *Meeting Children's Emotional Needs* (Englewood Cliffs, N.J.: Prentice-Hall, 1957), pp. 146-48.

zant of these standards if they are to be informed correctly. Some report forms give descriptions of academic expectations such as these:

READING:

Understands adequately reading material in fourth grade.

Reads at an effective rate.

Reads orally so that others enjoy listening to him.

Has developed reading interests.

Shows good ability to use word-attack skills.

Reads for pleasure in spare time.

Is learning to adjust reading method to different subjects.

Another report form may have stated expectations as follows:

LANGUAGE OBJECTIVES: To acquire ability to select appropriate words and use them well in oral and written expression; to use the dictionary; to develop creative writing ability; to write topic sentences and paragraphs, to outline, and to summarize.

Standards should also be developed for experiences other than scholastic work. Some schools include expected behavior standards in the report to parents:

PERSONAL AND SOCIAL BEHAVIOR

	ACCEPT- ABLE PROGRESS	FAIR PROGRESS	POOR PROGRESS
Does his share of the work			
Finishes jobs started			
Works independently			
Does not give up easily			
Is able to do things children of his age can do			
Sets up appropriate standards for himself			
Is thoughtful of others			
Is able to accept constructive criticism			
Shows interest in welfare of others			
Respects opinions of classmates			
Shows good sportsmanship			

TRENDS IN PROGRESS REPORTS TO PARENTS

In the first place, it seems evident that pupil progress reports to parents are becoming more friendly and sympathetic to individual needs and abilities. Present-day reports indicate more concern for the reasons why the child is not making the progress the teacher feels he should be making.

Reports in modern-day elementary schools are becoming more descriptive of behavioral characteristics than they were several years ago. There is a definite trend toward specific analyses rather than expression of opinion. Teachers are doing an increasingly better job of citing recorded evidence and specific diagnostic information which help parents better understand their child's progress. There is an encouraging increase in the number of teachers' reports which provide suggestions and remedial steps for helping the child make needed improvements.

There is a significant movement in all parts of the United States toward teacher-parent conferences and away from written reports. And the authors are well pleased, knowing the failure which has dogged the report card as an instrument of reporting from the day of its origin. There is so much likelihood that you will be asked to use the conference

PARENT-TEACHER CONFERENCES OFTEN INCLUDE PARENT-CHILD CONFERENCES AT THE SCHOOL.



for part or all of your reports to parents that the last section of this chapter is devoted to the parent-teacher conference.

PARENT-TEACHER CONFERENCES

Teachers have always had conferences with parents, but regularly scheduled conferences for the purpose of discussing pupil progress are fairly recent. Not long ago the accepted belief was that the teacher had complete charge of the child at school, and Mother's place was strictly in the kitchen—she had little or no reason to come to school. The few conferences with parents under this philosophy were often occasioned by misbehavior on the part of pupils, and the purpose was to report on the undisciplined child—to let the parents know just what kind of a mischievous, unruly child they were rearing. On one side was a rather excited and belligerent teacher and on the other, a defensive parent. It is needless to point out what kind of human relations atmosphere surrounded these conferences. Certainly it was one not conducive to the improvement of understanding between school and home. Another kind of conference was the "call at school" by the parent, usually to express dissatisfaction with some action of the teacher.

Unsatisfactory results from these contacts, plus a growing realization of the weaknesses of report cards and written pupil progress reports, have brought the parent-teacher conference to the forefront as the best method of acquainting parents with the educational progress of their children.

ADVANTAGES OF THE PARENT-TEACHER CONFERENCE

Conferences with parents have several advantages over other reporting methods. Among those claimed are the following:

1. Conferences give the teacher far greater latitude in and opportunity for describing to parents the child's educational status—his progress or lack of it. A fairly complete picture of the child's academic, social, and emotional growth can be given to the parent.
2. Parents can obtain information about the child's potential which most written reports cannot attempt to answer.
3. Parents can examine samples of their child's daily work which provide additional information not furnished in written reports.
4. Teachers gain information about child-parent relationships.
5. Teachers can describe problems and relate specific behavior characteristics to those problems. Teacher and parents have opportunity to work at co-operative solutions.
6. Parents can examine evaluation reports and tests during the conference period, thus seeing for themselves the types of mistakes made by their child.
7. Teachers learn from parents how children feel about school, what their interests are, how they spend their spare time, how they

behave at home, and how parents handle discipline. This kind of information is most valuable to the teacher in providing more adequately to meet needs of children.

- 8 Conference periods furnish opportunity for the teacher to explain the school program, to discuss objectives of the school, and to give parents some idea of the teaching methods used to meet these objectives.

DISADVANTAGES OF THE PARENT-TEACHER CONFERENCE

While favoring this method of reporting, we recognize that it, too, has some disadvantages.

Fathers in general are unable to attend conferences. When this is true, conferences become in reality mother-teacher conferences. Such conferences are very valuable, to be sure, but it is to be regretted when *both* parents cannot participate in them. Often, *neither* parent is available because of working hours, illness, inability to find someone to stay with pre-school children, lack of transportation, and so on.

To somewhat overcome these disadvantages, some elementary schools have found it necessary to return to written reports when most families cannot report for the conference. Some schools have set aside one evening for fathers who want to participate, and a summary report form, checked by the mother during the conference, is taken home for her husband's information. It should also be noted that many schools combine summary reports and conferences for every pupil. Another variation in method, using both written report and conference technique, is the practice of sending written reports to parents at mid-semester and scheduling conferences at the end of each semester.

Not all teachers possess conference skills. Many find directing a conference a difficult assignment and thus may not accomplish the purpose of the conference. Conference summaries are often difficult to make and may not be made at all. Thus, the cumulative record of the child develops some gaps in it. Preparing well for a conference is important; it takes thought and time. Some teachers ignore this.

ARRANGING FOR PARENT-TEACHER CONFERENCES

The necessity for co-operation in decisions about pupil progress reports was mentioned earlier. First, parents must have been contacted and general agreement reached to try out conferences in lieu of written reports. Second, it should be recognized that it takes time to meet parents, to discuss, and to reach conclusions. Teachers and principals act unwisely in instituting this method of reporting if provision is not made for adequate time to meet with parents. It is strongly recommended that regular school time be assigned for conferences with parents. Schools with successful programs usually dismiss pupils for at least four or five half-days near the end of each semester and hold conferences at school from 1 to 5 P.M.

The third point to consider is the scheduling of conferences. If pupils are dismissed in the afternoon for four or five days, 32 to 40 half-hour conference periods are available. Each teacher should be responsible for arranging time when parents are asked to come to the school. Parents should be sent notices and asked to indicate the times most convenient for them. Naturally, some adjustments will have to be made for final arrangements, but these can generally be taken care of. If parents have children in more than one classroom, it is good to find out if they would like to have all their conferences during one visit to the school.

Finally, you should be aware of the fact that you may have to spend some "overtime" in completing your conferences. Not every parent can come to the school when requested, so that it may be necessary for you to make some home visits for conferences.

PLANNING FOR THE CONFERENCE

Much of the success of this reporting procedure depends on you. How you meet parents, the poise you show in conducting the conference, and the manner, in general, in which the conference is handled determine the outcome. Careful planning is needed to assure a successful conference. Have you studied the guide developed by the school for conducting a conference? Do you have examples of the pupil's work to show the parents? Have you prepared evidence related to suggestions which you plan to discuss? Have you pinpointed a recommendation or two for which you consider parent co-operation most needed? These conferences aren't easy, and the extent to which they are effective depends a great deal on how well you plan for them. Adapting plans from the following suggestions to fit your own needs is recommended.

WHAT SHOULD BE DISCUSSED?

Before embarking on the parent-teacher conference program, it is not unusual to find that both teachers and parents approach their first conference with feelings of fear and dread. This is usually dispelled if adequate preparation has been made by the teacher and if the parents have been well-informed concerning the purposes of the conferences and what is expected of them. Some of the topics and types of information which can be expected to be discussed in conferences include:

TEACHERS' CONTRIBUTIONS

The child's progress in his classroom work
 Work habits at school
 Social adjustment—relationships with other children in the classroom, on the playground, and in other groups
 Interests, aptitudes, and abilities
 Relationships with teachers and other staff members
 Health or emotional problems
 Evidences of initiative, originality, and responsibility in school situations
 Response to school rules, regulations, and procedures

PARENTS' CONTRIBUTIONS

Child's reaction to the school

Evidences of initiative and creativeness in the home

Relationships with other members of the family

Relationships with other children in the neighborhood

Health problems and special handicaps

Home responsibilities and duties; out-of-school activities

Response to rules, regulations, and procedures in the home

Hobbies, special interests, and abilities

Problems in the home which the parent feels will help the teacher "know" the child

HOW TO CONDUCT THE CONFERENCE INTERVIEW

Prepare for the interview by reviewing the cumulative folder and by observing the child's behavior in a variety of situations.

Make the parent feel welcome and comfortable. A friendly working relationship is necessary if there are to be positive outcomes.

Be alert to and aware of differences in cultural background. Speak the parents' "language" but do not insult them; avoid talking down to them.

Be tactful. Many parents resent inquiry into what they consider their personal affairs. Sometimes parents are on the defensive and are over-critical of what may be innocent comments or questions.

Remember that, typically, parents want to know the facts, though they might not always want to admit them. "Glossing over" the facts probably develops very little insight on the part of parents, at the same time, do not be "brutal" in the realism with which facts are presented.

Indicate genuine interest and sincerity at all times.

Keep confidences shared with you by the child or the parent.

Try to place yourself in the parent's position. You can better appreciate how he feels about what you are discussing.

Avoid comparison with other children, particularly siblings.

Don't use educational "double talk." Some words such as *immature*, *aggressive*, *maladjusted*, and *retarded*, which are acceptable educational jargon, may have a different meaning for the parent.

Avoid dealing in generalities. Suggestions should be specific and to the point.

Don't lecture! Listen closely and sympathetically. *Let the parents talk too!*

Be aware of the fact that some parents will tend to be over-defensive of their children. On the other hand, there will be some who will "identify" with the teacher and will be hypercritical of their child in the hope of demonstrating to the teacher how "co-operative" they are.

Do not cover too many topics in one interview.

Don't extend the conference beyond the point of having covered the topics satisfactorily, even if the time is not all taken.⁶

⁶ Bureau of Educational Research, College of Education, Michigan State University, *The Parent Teacher Conference*, rev. ed. (East Lansing, Mich., 1958), pp. 4-6.

SUMMARY

It is claimed that anything that exists can be measured. If that is so, education, since it exists, can be measured. Growth can be identified, can be evaluated. The educational progress of children can be noted.

The beginning teacher knows many instruments and methods of evaluation. Experience in the classroom and school will broaden his concept of evaluation and sharpen his skills in making evaluations.

From evaluation comes course-charting for the pupil—remedial work, direction, counselling, guidance—all in the interest of the pupil's progress and his continuous growth.

Pupil progress, pupil status, pupil success, and pupil difficulty—all should, in some manner, be reported to the parent. There exist many kinds of reporting programs, devices, and methods, among them the well-known report card and the more recent parent-teacher conference.

PROBLEMS AND DISCUSSION TOPICS

1. Discuss why teachers *must* have a planned program for evaluating pupil progress. In other words, *why evaluate?*
2. State *three* factors to be observed by the elementary teacher in the use of each of the following evaluative instruments:
 - a. The essay test
 - b. The multiple-choice test
 - c. The true-false test
 - d. The matching test
3. What do these terms mean and how are they related to the intelligence test: *mental age, chronological age, intelligence quotient?*
4. Discuss effective use of group intelligence test results by the classroom teacher. How are these results *misused* by some teachers?
5. Why should elementary teachers spend time securing the information about achievement test scores recommended in the form reproduced on page 370?
6. What are the values of the sociogram? How does the teacher construct and use this instrument?
7. Discuss specific and significant criteria for judging a pupil progress report to parents.
8. Consider the merits and the disadvantages of a system of reporting to parents in which each teacher would use the method which *he* felt to be best for his class.
9. What are some of the important reasons why more and more elementary schools are adopting the parent-teacher conference for reporting pupil progress?
10. On report cards, such standard marks and terms as "at grade level," "A, B, C, D, E, F," "Excellent," "S" (for Satisfactory), and

"U" (for unsatisfactory), lend themselves to as many interpretations as there are teachers who use them. How is this dilemma to be resolved?

WHAT WOULD YOU DO?

Your school uses the parent-teacher conference for reporting pupil progress. The first nine-weeks period has ended and you are conducting these conferences. Mr. and Mrs. Weems have just seated themselves. The three of you are meeting one another for the first time. They begin immediately with animated enthusiasm. Sara is happy in school for the first time. She adores her teacher. She comes home, as she has *never* done before, bringing her school work and, ignoring television, works happily on her assignments until her parents have to make her relax and do something for fun. "From our point of view," they say, "she surely is doing well in school for once!"

Sara is actually doing little in school. The "work" she does at home has little relationship to school purposes. She fails to complete her work. She finds the grade very difficult. Perhaps she should have been retained last year. She has few friends; she gets along with her peers very poorly. You have discovered her cheating in arithmetic. The parents look at you now, waiting to hear the good news.

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CHAPTER 19

TECHNIQUES AND TOOLS FOR YOUR TEACHING

This has been a book about elementary-school curriculum—its history, theory, and content. Curriculum organization and programming have been described. All “subject” chapters contain a section which shows how the theoretical can be used and applied in the classroom. Interspersed throughout the book have been suggestions and examples of ways in which the curriculum can be made effective for children.”

The aim of the book, of your courses in teacher education, and of the professors who have guided and taught you in the area of curriculum, has been to have you know the total Composite Elementary School curriculum and to understand thoroughly that part of the curriculum which you are planning to direct.

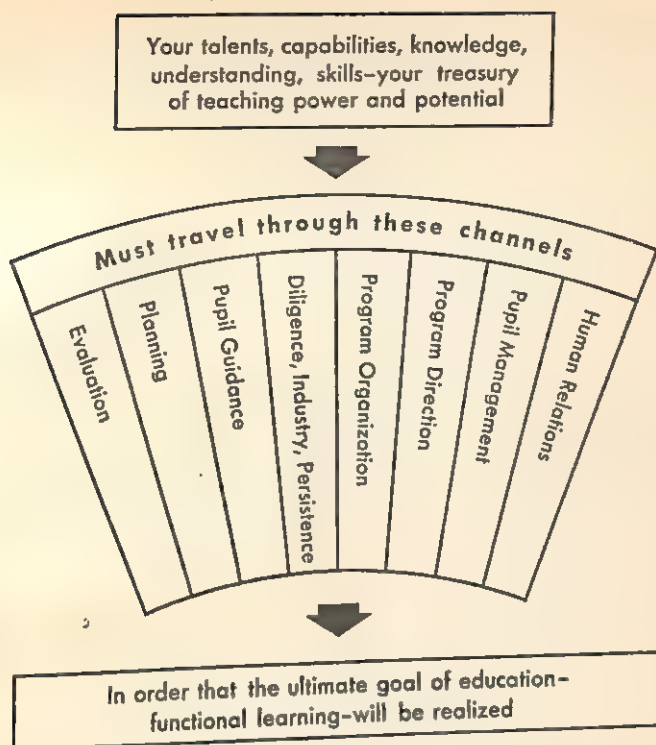
To be well prepared to teach is one thing, a good thing and a necessary thing. The challenge now is to channel your knowledge, skills, understandings, talents, and abilities, not only in the area of the curriculum, but in *all* facets of teaching, into growth and learning on the part of children. This thought is expressed graphically on the next page.

This last chapter is a chapter of suggestions, techniques, and tools which may give you further direction and support in your day-to-day teaching. The authors hope that it will help you avoid mistakes, difficulties, and undesirable situations.

Many “bridges” from theory to practice you will improve; others you will build by yourself as you develop your career in teaching.

ESTABLISHING AND MAINTAINING CLASSROOM CLIMATE

The atmosphere and tone which prevail in the classroom will determine to a large degree the success the teacher will enjoy and the amount and quality of learning that will take place. Obviously, a climate that is wholesome, conducive to learning, friendly, and stimulating and which



creates and fosters in children positive attitudes toward learning is the climate desired. The opposite does occasionally prevail in the classroom of some teachers, who either do not understand what a positive and acceptable climate is or, knowing, are unable to create and maintain it.

"GROUND RULES" COME FIRST

The rules and procedures that a group of children and their teacher believe necessary and helpful in their daily living should be decided upon and "constitutionalized" during those first important days of each new school year. These guides and disciplines to successful school life will be much more meaningful and effective if the children share in their establishment. The teacher, however, should never hesitate to establish some rules of his own, for his responsibility is still the greatest. Sometimes benevolent autocracy is necessary and the teacher must take a stand and make necessary decisions. For example, the teacher may be expected to set the procedures for toilet visitations. The teacher will occasionally need to abrogate some rule or regulations as his judgment guides him.

Some common "ground rules" are these:

1. Procedures for moving about the room, leaving the classroom, talking with neighbors, getting drinks, sharpening pencils, handling wraps, use of materials and equipment, and handling furniture.
2. Refraining from talking when someone else is speaking, when certain activities are in process, when study periods are being held, and when directions are being given.

"GROUND RULES" FOR THE TEACHER

1. Do not permit children to call one another by their last names. "Hey, Anderson," suggests a casualness and disrespect that detracts from good classroom climate.
2. Insist on children calling you by your proper title ("Mr. Tyler" or "Mrs. Woodworth"), rather than "Teacher." Be firm in enforcing this rule. When Mr. Smith permits children to call him "Smitty," respect begins to wane. Similarly, teachers should call children by their proper names. Never nickname the children. "Sandra" should not become "Sandy." Avoid such informal usages as "Sweetie," "Pal," and "Buster," or degrading names like "Freckles," "Butch," and "Red." Be careful not to become overfriendly, too informal, or too chummy with children. We cannot tell you exactly where the line is; you must draw it yourself.
3. Control the "roamer," that child or those children who embark constantly on trips about the room.
4. Do not permit careless posture which tends to break down good class atmosphere. Don't permit children to lounge at their desks or tables, tilt back in the reading circle, or slump at their work. Watch yourself in this respect, too.
5. Avoid threatening children; do not use sarcasm.
6. Constant scolding or other verbal discipline is quite bad, for both teacher and student. When this happens, re-evaluate your guidance methods. Such conduct on the part of the teacher damages both the mental health of the children and his own.
7. Learn to criticize humanely and kindly. It has been said that criticism is like wind moving a mobile; if it is not too strong, it is good.
8. Avoid talking too much or making the children talk excessively. One can get into the habit of asking for children's reactions and opinions at every turn. Don't have the children vote on this, that, and the other: "Do you agree?", "How many think so?", "Did you like . . ." When it is desirable for a group or class to answer in unison, try to have them indicate Yes or No by head movements or a show of hands, for a quieter room tone.
9. Encourage laughter, but control it. Children should not laugh at others, but with them.
10. Do not let children argue, quibble, or squabble. They will carry any of these to a riotous degree in a hurry.

OPENING ACTIVITIES SET THE TONE OF THE DAY

The fruits of a pleasant and worthwhile beginning will be enjoyed all day long. There should be a formal start of the day when the room comes to order. This is usually at the starting or "tardy" bell.

"Opening" routines probably include the salute to the flag, a song or a thought for the day, announcements, taking the roll, making plans for the day, and ordering lunch or milk. Pupils can direct a major part of these activities. Perhaps the class president can conduct the opening period. During the flag salute or song, it is courteous for late-comers to remain outside the door.

A CHANGE OF PACE IS ALWAYS WELCOME

Room harmony and atmosphere are enhanced when the teacher is sensitive to the need for a rest, a change of activity, a short respite from the task at hand. Refreshment of both body and spirit comes through singing a song, a few physical exercises, getting drinks, lavatory visitation, or merely sitting and being quiet.

A PLANNED CLOSING

Whether the school day will end frantically or peacefully for the children and the teacher depends on whether or not the teacher plans for and directs a satisfying and rewarding closing. When the closing is not planned, the children rush out of the classroom, frantically trying to catch the bus or a friend, or to reach the dentist's office on time. With wraps half on, rubbers and homework forgotten, they leave school for the day.

Contrasted with this is the calm and quiet of a planned closing in which children take stock before leaving and have time for a pleasant "Good-bye, Miss Abbott," as they move slowly into the hallway.

Allow enough time for a good closing, for a closing of the day *academically* and *emotionally*. There must be time to evaluate today and anticipate tomorrow; time to prepare to go home. Golden are those last two minutes when everyone is ready, and the teacher has the children sitting quietly, calmly, enjoyably, listening to soft music, a closing thought, a poem, a story. That stack of papers to correct, the duplicating to complete, the meeting to attend—all will seem easier to the teacher who goes to them from this kind of closing.

TECHNIQUES OF DISCIPLINE

Techniques of discipline and pupil management and of establishing and maintaining classroom atmosphere are much the same. How you discipline will markedly affect the tone of the room, and vice versa.

Our experience has convinced us that pupil management—discipline—is the number one cause of teacher failure. More than anything else, it blocks the avenues through which potential good teaching could otherwise flow. As principals, we have given much more time to matters of discipline than to any other problems teachers have. We have not regretted the time spent on this aspect of our jobs, for we believe the principal *must* support the teacher in discipline—that he can leave no stone unturned in his effort to help the teacher who is having disciplinary difficulties. Rather, we regret that this is so—that discipline *is*, for many teachers, so very difficult and baffling. Perhaps through these bold statements we can help the beginning teacher by further impressing on him the seriousness with which teachers must approach and treat this matter of discipline. Through suggestions which follow in this chapter, we hope to prepare you further for successful procedures in pupil management.¹

THE PROGRAM IS THE KEY

You have read it and heard it many times, but it is so important that we want to repeat it: an interesting, well-planned and well-directed program of studies and activities takes care of most of the problems of pupil management. Children who are busy with interesting, meaningful, challenging work are, in general, children who have no desire or need to misbehave. Such a program comes about only *when the teacher works and works hard*. The program is the key, but the key must be forged on the anvil of dedicated and relentless teacher effort.

Each day that finds you enthusiastically and adequately prepared at its beginning will be a day that goes along well, especially in matters of discipline. Conversely, the day that you are not prepared will be a day that brings you problems. Mark this well. If there are no other adages in teaching, let this be one.

THE MATTER OF CONSISTENCY

Both parents and teachers are haunted by the problem of consistency. We can, with attention and effort, reach the point where children know we *usually* mean what we say.

In the school, inconsistency is seen in such situations as the following:

1. Making rules that we do not enforce. A teacher demands that only one child be away from his desk at a time. Months later, the teacher is heard to exclaim, seeing eight children roaming about, "What have I said about more than one student being out of his

¹ A more extended discussion of discipline appears in Hicks, Wm. V. and Marshall C. Jameson, *The Elementary School Principal at Work*. Prentice-Hall, Englewood Cliffs, N.J., 1957. Chapter 9.



TEACHER SKILLS IN PUPIL MANAGEMENT ALLOW FOR MANY ENRICHING ACTIVITIES.

seat at a time?" This is convincing proof that the teacher has not enforced her rule.

Another example: Asking pupils not to break into the reading circle for help or questions and then answering their questions as they continue to break in. (Making unwise or unenforceable rules often forces us to be inconsistent.)

2. Making unnecessary, indefensible concessions and exemptions. "Well, just this once," is the foot in the door.
3. Establishing too many rules and regulations. Remember, the best regulated room is usually the room that has the fewest prohibitions.

Inconsistency is caused, too, by the condition of the teacher's own emotional and physical health. Some days it's just too hard to enforce the rules. "I'm just not up to it today. It's easier to join 'em than fight 'em!" Or the opposite may prevail; when you aren't feeling well, you're a "bear," and the children dare not make a move. But tomorrow, after a good night's rest or the solution of a personal problem, little things don't bother you, and the repudiation of rules and procedures by the pupils seems unimportant.

We are also inconsistent about what we do regarding rule infractions .

or violations. Again, it may depend upon how we are feeling at the moment. On Wednesday, the offending child may be severely chastised for the same thing the teacher winked at on Monday.

SOME "PRINCIPLES" OF DISCIPLINE AND GUIDANCE

1. Other than the occasional "Mary, please return to your work," or "Albert, is that talking necessary?" the disciplining of a child should be done in private. It is embarrassing to the child and to the entire class when a teacher chastises a pupil in the presence of others. It should be embarrassing to the teacher.
2. Teachers should not continue to punish and discipline the child whose problem is beyond her understanding or help. The child should be brought early to the attention of the principal for next steps.
3. The teacher should never say to an offending child, "I don't like you!" "I don't like *what you did*," however, is a statement well in order.
4. Children ought not be sent to a lower grade for disciplinary purposes. "If you're going to behave like a first grader, you may as well go to the first grade class for the next hour." We do not help children by degrading them. And what about the children and teacher who have this child sent to them?
5. Above all, teachers should keep their tempers under control. One "blow up" and the teacher loses respect she will never quite regain. We believe, however, that it is defensible to let a child know you are angry when certain offenses are committed. To smile when a child strikes you, deliberately destroys property, or purposely injures another child is unrealistic. But, during your anger, refrain from disciplining the child!
6. Be realistic and fair in discipline. Let us hope that the days of the dunce cap, the nose on a dot on the blackboard, the writing of useless pages of words and sentences, are forever gone. Keeping children from recesses may be occasionally justified, but we must remind ourselves of the purposes of recesses. We would not keep a child away from his arithmetic, and we should not keep him away from his gym, music, or similar activities.
7. The classroom teacher should not go beyond the simple and mild kinds of chastisements and penalties. His principal responsibility is the pursuit of the curriculum; the greater responsibility for pupil discipline, for solving the problems of children who are defiant, unco-operative, and unmanageable rests with others—the principal, the visiting teacher, the psychologist, the parent. It is the principal's responsibility to remove the incorrigible from the classroom. The classroom teacher is not a therapist. When it can be seen that the teacher who possesses the skills and techniques to handle the normal problems of discipline is unable to

meet the excessive guidance needs of any child, it is unfair to the child, the teacher, and to the other children to permit the child to continue in that setting.

8. While it is not possible to exclude our emotions completely, we must ever give less attention to how we *feel* when a child misbehaves and more to what we can and must *do* for the child. This is difficult, but it is a worthy goal.

ROOM ARRANGEMENT

Elementary school classrooms are rapidly being liberated from the strait-jacket pattern of room arrangement which has prevailed for such a long time. We refer to the rows of desks fastened to the floor, dominated by the teacher's desk centered at the front. Occasionally a table or two found space at the rear of the room.

In most schools today, *movable* furniture predominates—either individual pupil desks or table-chair combinations. These may be arranged in rows, often with good reason. But they may also be grouped in many interesting arrangements, depending on the needs and purposes of the activity at hand.

Other furniture to fit the need at hand enhances the work of pupils and teachers. Such furniture includes single chairs, library and science tables, magazine stands or racks, easels, globe stands, encyclopedia and movable book carts, activity tables, "reading nook" furniture, files, book and record cabinets, and the like.

IN ARRANGING A ROOM WE SUGGEST THE FOLLOWING:

1. Locate the reading table in good light.
2. Avoid a seating arrangement which causes children to face the windows.
3. Do not clutter the room with unneeded furniture and equipment.
4. Avoid exotic or peculiar room arrangements merely for the sake of change.
5. While the custodian should not dictate room arrangement, you should avoid arrangements that will make his work unnecessarily difficult and time-consuming.
6. Everyone likes a change. Do not use one arrangement for the whole year.

GROUPING OF DESKS AND TABLES

The manner in which children's desks are arranged will determine the nature of pupil interaction. To the question, once asked of a teacher, "Why do you have your students arranged in these straight rows, all facing the teacher?" the answer given was "Well, they have more to say to me than to each other." With this philosophy, the teacher had the,

best arrangement. We would not be able to defend such a philosophy, however.

No doubt straight-line seating reduces children's talking to one another, but it also reduces face-to-face interaction which, correctly managed, enhances learning.

Until you know what you want in grouping and have developed the skill to control various kinds of physical grouping, do not apologize for maintaining a straight-row organization. As principals, we have often urged the teacher having some difficulty with pupil management to group the desks in such a fashion, for it does make pupil management easier. Too, when the class is engaged in *individual study*, straight-line grouping is conducive to concentration. At other times, the line should be broken into another kind of grouping for other activities. For example, during a music activity, you will find that grouping the desks or chairs in one large circle will enhance the activity, affording a friendly atmosphere. You must, of course, have well-established procedures for forming groups and for breaking them up again.

OTHER MATTERS TO CONSIDER

More than furniture arrangement is involved in making a room serviceable and attractive. Attention should be given to such items as these:

1. Keep bulletin boards current and attractive.
2. Change wall pictures occasionally, or change their position. Obtain several frames and put in them pictures and paintings made by the children.
3. Add plants to make your room more attractive. But take care of them!
4. Try placing your desk at the rear or at the side of the room. However, it should never block any bulletin or chalk boards.
5. Watch over-neatness. Sometimes we see rooms that are just *too* neat. Of course, teachers should avoid rooms that look as though the proverbial cyclone has just passed through.
6. When pupil desks are adjustable, by all means adjust them to the child, making him as comfortable as possible.

ON GIVING ASSIGNMENTS AND DIRECTIONS

Your attention is again called to the importance of giving directions and assignments so that children hear and understand what they are to do.

First, you should have clearly in mind whatever it is you want children to hear and to do. You should have good reasons for directions, have *aims* in mind, and have at hand materials and tools needed to make the assignment or explanation understood by the children.

Then, you must get the attention of all who are involved. Wait for this; do not begin with one child still at the drinking fountain. Give instruc-

tions slowly, and don't give too many directions at a time. Develop and use techniques for *testing* the efficacy of your directions. Some children who do not fully understand are hesitant to say so. Train children to listen the *first time* a direction is given.

"YOUR ASSIGNMENT FOR TOMORROW". . . .

Especially in the later elementary grades, where more assignments are generally given, *know beforehand* any assignment to be made. Avoid the spur-of-the-moment assignment.

YOUR TIME BELONGS TO THE PUPILS

The catchy tune *Getting to Know You* has words that are somewhat philosophical, suggesting that the more we know others, the nicer we find them and the better we like them. This song could be an appropriate theme song for teachers and pupils alike. The better the teacher can know his pupils, the better he can teach and counsel and direct them; the better children know their teacher, the more they will like him and come to know him as a real person and as a friend. A kindergartner who had been to visit the principal on matters other than discipline remarked to his teacher on returning to the classroom, "Gee, he's just like a people!"

Time must be given to the job of getting to know students, time other than school time. We speak to you, then, on this point—on finding a time when pupils can get acquainted with their teacher, and vice versa. We have two times to suggest, though other periods can be found.

GREET THEM IN THE MORNING

One of the best times for teachers and pupils to enjoy one another informally is during gathering time in the morning. We believe it is important for the teacher to dedicate fifteen or twenty minutes just before school begins to this purpose; fifteen minutes when the teacher has no obligation other than to be available for the children to talk with and visit. During this time the teacher may listen to Tom, who wants to tell about his visit to the army camp; to Helen, wanting to ask about yesterday's social studies. He helps Jimmy with a zipper, goes with Susan to find some off-white construction paper, enjoys having Ronald show him how his new combination lock works.

During this time, the whole room may gather with the teacher to see if the guppies have had babies yet, if the seeds have sprouted, if the ceramics are ready for firing. During this time, the teacher does not plan lessons, correct papers, go to the teacher's lounge, cut paper, put work on the chalkboard, make out report cards, chat with the teacher across the hall, or make phone calls.

This time belongs to the children. We hope you will set aside such a time for your children to enjoy being with you. The children want you

for a friend. They will like you, enjoy being with you and talking with you during this non-scheduled time, when they can talk to you "without getting permission."

Isn't it a compliment that children *want* to come into the classroom and enjoy their room and their teacher. Why would we want to keep them out, to have a regulation which forces them to stay outside or at the door, waiting the "proper" time to come in?

"I can't get my work done if the children are bothering me first thing in the morning," some teacher may say. Well, this teacher should arrive early enough, or stay late enough in the afternoon, so that these minutes can belong to the children. One teacher told us that he prizes this period so very much and enjoys it so thoroughly that he refuses to let anything other than an emergency interfere with it.

INDIVIDUALIZATION TIME

A second time for getting to know pupils better is what we call "individualization time," a set time, daily if possible, when there are no scheduled activities. This is a period when the teacher goes from pupil to pupil, visiting, commenting, helping, encouraging. During this time, the pupils do whatever they wish—within reason, of course—but they must do it alone. This helps maintain the quiet tone that should prevail.

Possibilities for guidance arise from these periods. Our suggestion is that the teacher move his chair from one desk to the other, so that his visit can be at the child's desk and on his level.

CARE OF MATERIALS AND EQUIPMENT

Materials and equipment in the classroom should be well cared for. This is one of the teacher's serious responsibilities. He should take excellent care of school property so that it will give the utmost service and last as long as possible. The teacher also needs to teach children how they should care for things they use and why they should take good care of them. He should establish in them a respect for public property.

BOOKS. Children should be taught proper respect for books, how to use them properly, how to care for them. Whether or not the school furnishes books free, this lesson needs teaching.

Teachers and librarians sometimes ruin books by displaying them, upright and partly opened. In a few days the backs curl and the books will never again close properly. Save the jackets and display these in any fashion. Children like to make book jackets to prevent books from becoming soiled.

PASTING, GLUING, TAPING. With the number of display boards, cork boards, and display cases found in the elementary school and classroom, we believe it both wrong and unnecessary to display art work and papers on the woodwork, the walls, door glass, in windows, or on other surfaces

not meant for display purposes. Certain kinds of tape leave a film that is difficult to remove. If materials are pasted or taped on woodwork for any length of time, they may leave a faded imprint. We question the pasting of silhouettes and other decorations on window glass, too. From the outside, it makes the school look ragged, with one room pasted with materials, the next one not. Furthermore, it is unfair to make difficult and unnecessary work for the school custodian in removing residue. The window glass has one main purpose—to let in natural light, not to be used for display purposes. Above all, refrain from taping or pasting on the chalkboards. Doing so may ruin the surface.

THUMB TACKS. Thumb tacks should be used only on corkboard and orange crates, not on moldings, window frames, or door frames.

DESK AND COUNTER SURFACES. Hot plates, glue, acids, paint, damp plant pots—these leave their indelible marks on plastic and other materials used to surface tables, desks, and counters. Careless use of ink is another offense. Such carelessness on the part of children, and on the part of teachers who permit it, is inexcusable.

USE OF OTHER MATERIALS AND EQUIPMENT

1. Children will accidentally mar and deface wall maps if they are permitted to point out locations with a pencil or other sharp instrument.
2. Phonographs should be covered when not in use. Keep them away from the chalk board so that chalk dust cannot seep into the motor.
3. If children are permitted to raise and lower window shades, teach them to do so carefully and properly.
4. Expensive and intricate audio-visual equipment should not be handled or operated by children, except by upper-grade children especially trained in an audio-visual class or club.
5. Athletic equipment has special-care needs, too. Leather balls should not be used on wet playgrounds or in the snow or rain. Returning athletic equipment to the room from the playground should be carefully supervised, lest articles be left out to be carried off or ruined in the weather.
6. Window sills, piano tops, and tables are natural places to set plants; they are not *proper* places, however.
7. Materials and equipment that are borrowed from other parts of the building should be returned on schedule.

USING THE PRINCIPAL

WHEN SHALL THE PRINCIPAL COME IN?

You should make your principal feel welcome to come into your classroom at any time. You should ask him in to see various activities, both

those which will bring you praise and those about which you wish advice and counsel. As a beginning teacher, have him help you *immediately* if you begin to have difficulty with pupil management. Principals have been alerted too late at times. If you are planning a program, have him in on the planning in order to have the benefit of his suggestions. Never invite him in to see a program for the first time when you are presenting it to the other classes or to the parents.

Use the principal! Make him work! High on his list of reasons for being there is to help the teachers. Ask for a conference occasionally when you have no problem. Just sit and chat with him about how things are going. We hope your principal will not pass up opportunities to praise you and indicate that you are appreciated. But this is a two-way street. Let *him* know when he has done something you like or something you consider good for the school.

PRIZES AND PROMPTERS

One superintendent of schools remarked that the requisitions for stars (the gummed ones) were regularly numerous. He probably had some concern about such a heavy use of these materials. We also have such concern. Stars can be over-used. You should use good judgment in their employment.

More to be deplored is the giving of prizes by the teacher to pupils, teams, or groups. Education is not a contest. Prizes indicate that someone has won and someone has lost. We believe competition is good and that it has a place in the elementary school. Children compete naturally, however, and we do not believe that in the classroom we need do much more in the way of providing competitive activities.

In most contests, all pupils have to compete for the same goal or prize, with no adjustment made for those with less ability or with limitations which dim their chances of winning. "All who get the 25 words in our spelling this week will get a star." Are 25 words a *fair* goal for all? "All who have a perfect score all week in arithmetic will get an extra recess." Hardly worthy teacher-sponsored procedures.

ERRORS IN YOUR SPEECH

In an earlier chapter, teachers were alerted to the need to speak correctly because they are models for children. Certain useless and incorrect words and expressions do creep into our speech, often without our awareness. Here are some common examples:

1. Overuse of the words "all right." One habit is using the words after children have answered a question, have made a comment, com-

pleted reading a passage, or finished working an arithmetic example at the chalk board.

2. The parenthetical phrase "I mean" has found its way into the language of most of us today. Are you aware of it?
3. Teachers need not and should not make a comment after every answer given by children, such as "Good," "That's right," "Fine!" "O.K." and our old enemy, "All right."
4. Repeating children's answers is another bad habit.
5. Prefacing statements with, "Now, I may be wrong about this," "I'm not sure if this has a bearing, but," and "If I'm not mistaken," adds little to the statement that follows.
6. Be careful that you do not state *opinion* as *fact*. Even the adage "Honesty is the best policy" is only opinion.
7. Slang should be used sparingly, if at all.
8. Casual, semi-sarcastic, or flippant statements to children should be avoided. We have heard teachers make these remarks to students: "Now, class, I hope I won't have to clobber anyone!" "I'm going to have to toss someone out of the window if this talking continues." "You are an old fuddy-duddy!"

Such statements were made in jest and, in most cases, the children took them that way. But how do these statements sound when repeated at home? "Daddy, Miss Jones called me 'stupid' in arithmetic today."

A PERSONAL WORD TO YOU

There are certain matters which can have an effect on your success as a teacher, especially during your first year. We present some of them for your consideration.

MARRIAGE

Occasionally teachers marry during their first year of teaching, thus taking on *two* very important and serious roles at the same time. Especially difficult for such a teacher in her school role is a wedding soon after school begins and before she really has control of her teaching situation. It goes without saying that such a person will devote much more of her thoughts, planning activities, and energies to one role than to the other. One role is bound to be slighted, at least for a time. You can correctly guess which one.

COLLEGE COURSES

During the first year of your teaching, especially during the first semester, we would advise against your enrolling for graduate college courses. Such study will probably not be required of you or urged upon you by the administration. Usually salary schedules and plans give the beginning

teacher a "break" in this regard. Reserve your energies and time for this tremendously important task you have set for yourself—being a successful first-year teacher.

CLIQUEs

If you discover there are several factions among the faculty of your school, you will do well to remain a nonmember. Your associations with *all* the staff should be friendly, co-operative, and professional.

COMPETITION

Teachers are competitive. Even without being aware of it, they are constantly in competition with one another. It is natural that teachers want to be known as good teachers and want to be highly regarded by co-teachers and by the principal. Competition which arises from such ambitions as these is healthy. But there are variations in competition. Older teachers may look upon you, with your youth, your new ideas, your enthusiasm, as a threat to their security and standing. Be prepared for this and meet it as well as you can.

On the other hand, you may feel inferior to the experienced teachers, believing that you are not doing nearly as well as they. Our antidote is this: believe in yourself, have confidence in your ability. Your university believes in you, for it has bestowed on you a degree in teacher education. Your principal and superintendent have confidence in you, for they have chosen you from among other applicants. Hold to your own ideas and beliefs. Teach the way you believe is best for you. Don't always defer to the veteran. At the same time, learn from veteran teachers what you can.

WORK DILIGENTLY

Arrive at school on time. Arrive *before* the due-in hour, so that you will have ample time to prepare for the day. You will be ready for that fifteen minutes of enjoyment with your pupils before the starting bell sounds.

Remain after the children have gone home for the day for as long as it takes you to complete the activities and work that await you. Occasionally, stay a bit longer than this. You'll find much to do.

EVALUATE YOURSELF OCCASIONALLY

Self-appraisal and self-evaluation can be stimulating, refreshing, and fruitful. The following questions are designed for the teacher on the job to use for an occasional or, better yet, a *regular* check-up:

1. Am I unduly curt or short with pupils at times?
2. Do my pupils refer to me outside the classroom as a grouch, a "fuss-budget," or by other generally uncomplimentary terms?
3. Do I lose control of my temper or show an unnecessary or unusual depth of displeasure, thus placing me on the level of the child's maturity?

4. Do I resort to loud talk or yelling at pupils in my efforts to get my point across or to control the group?
5. Am I a teacher that pupils (and parents) request at enrollment time, or am I one that they must take, since the other sections are filled?
6. Am I *fair* in dealing with pupils? Do I give each his share of attention, or do I permit my preferences to show at times?
7. Do I laugh and smile, and am I pleasant in my relationships with pupils?
8. Do I actually *like* children, enjoy being with them, playing with them, working with them?
9. Do I let my family, home, or outside problems show up in the classroom or in my dealings with other teachers or with parents? (Showing signs of over-worry, over-tiredness, or over-work, being somewhat insecure, not being able to "take it," snapping at pupils and other teachers, the office secretary or custodian; getting angry over little things, and being unco-operative or suspicious of other teachers.)
10. Do I get constant complaints from parents, from students, from the office, from the principal?
11. Do I plan my work so that I know (and the *children* know that I know) good preparation has gone into every lesson plan?
12. Am I a good listener?
13. Do I conscientiously follow up on assignments that I have made, check papers I have requested of pupils, and carefully analyze mistakes made in reading workbook assignments?
14. Do I take genuine interest in the health and welfare of my pupils, calling the parent when a child has been ill and out of school?
15. Am I really concerned about and interested in the out-of-school activities of my pupils?
16. Have I visited in the homes of my pupils?
17. Do I try to think of something nice to say to each pupil every day?
18. Do I give every student an opportunity to make at least one oral contribution daily?
19. Do I tell pupils that they are improving or compliment them when they have made a sincere, conscientious effort?
20. If I request help from a parent, do I follow it up with a telephone call to "let Mom know how Johnny is coming along?" Do I thank her for her help?
21. If a child is falling behind or if he is failing to complete his work, do I discuss his trouble with his parents, trying to analyze causes and find ways of helping the child?
22. Do I participate in any adult affairs with school parents?
23. Do I accept constructive criticism or questions about my techniques or methods from parents, or am I immediately on the defensive?
24. Do I refrain from gossip about my colleagues?

25. Do I support professional teaching organizations not only by paying dues but by actively participating in conscious efforts to improve the status of teachers?
26. Do I have courage to talk up to my principal or superior and courage enough to stand by my convictions when I think I'm right? Can I accept defeat graciously?
27. Do I participate occasionally in pupils' activities on the playground or in the gymnasium?
28. Am I on the alert for ways of improving my school—hallway behavior, lunchroom or library practices, and safety?
29. Do I always thank another teacher who has been considerate enough to correct one of my pupils?
30. Do I try to keep alerted to trends in my area and in education generally by professional reading, workshops, and educational conferences?
31. Do I sit in teachers' meetings and let others "carry the ball," or do I do some thinking on my own, express myself accordingly, and accept responsibilities?
32. Am I fully able to explain pupil grades, difficulties, progress, and comments on report cards in a constructive, calm, and forthright manner?
33. Do I try to find something good in every child under my care and report it to parents in conferences or on pupil progress reports?
34. When an outsider (member of my bridge club, for example) criticizes school practices unjustly, do I attempt to answer or let the matter slide?
35. Do I welcome visitors to my classroom?
36. Do I use community resources in my instructional program? Do I occasionally report a school-room activity for the local newspapers?
37. When parents ask questions about the school program, do I take the time necessary to give a satisfactory answer, find out the answer, or refer them to someone who may know the answer?
38. Am I not afraid to say "I don't know" to pupil inquiries?
39. Do I dress appropriately and neatly and try to make as good an appearance as I can every day I teach?
40. In my daily teaching, do I do all that I can to make my classes so interesting, so alive, and so meaningful that I would enjoy having myself as a teacher? Do I look forward with eagerness and pleasure to tomorrow's teaching?

SUMMARY

The teacher must establish and maintain in the classroom an atmosphere conducive to learning. Careful planning of the opening and closing activities of the day will do much to establish a good atmosphere.

Good disciplinary techniques will also do much to establish a good atmosphere.

A teacher must give careful attention to room arrangement and to the care of materials and equipment.

Every teacher, whether new or experienced, should discuss his teaching problems and techniques with the principal.

PROBLEMS AND DISCUSSION TOPICS

1. List some rules you would establish and announce to your pupils as you begin teaching, and some you believe might come from the pupils.
2. What are some ways in which you might negatively influence your pupils—by actions, words, habits.
3. You will want to talk with your principal about many aspects of your teaching during the year. What are some possibilities?
4. Although your room, by your arrangement of the furniture, is more difficult to clean, the custodian has been very understanding and co-operative. You decide to give him a nice gift at Christmas time. Should you first discuss this with anyone?
5. How should a male teacher approach this situation: a twelve-year-old girl "falls in love" with him and is very demonstrative about it?
6. Make a floor plan of the classroom of your dreams, giving dimensions, built-in features, alcoves, amount of display space, and so on.
7. Now put into that room the furniture and equipment you think should go there. Show arrangement, the furniture, and its location.
8. How can you get a child to do his work when he doesn't want to do it, or when he refuses to follow your directions?
9. How do you evaluate *isolation* as a technique in pupil management (excusing a child from the room, removing him from the group, sending him home)?
10. A child who comes in a half-hour late usually receives a tardy mark. How would you mark (or would you not mark?) the child whose mother comes for him a half-hour before the half-day session ends?
11. In your next visit to an elementary classroom, look for techniques used by the teacher in pupil management.

WHAT WOULD YOU DO?

Many of your children, even after eight weeks of the new term, continue to stop in to visit their teacher of last year. He encourages the children, with the intention of remaining their friend. They take problems to him which should be brought to you.

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